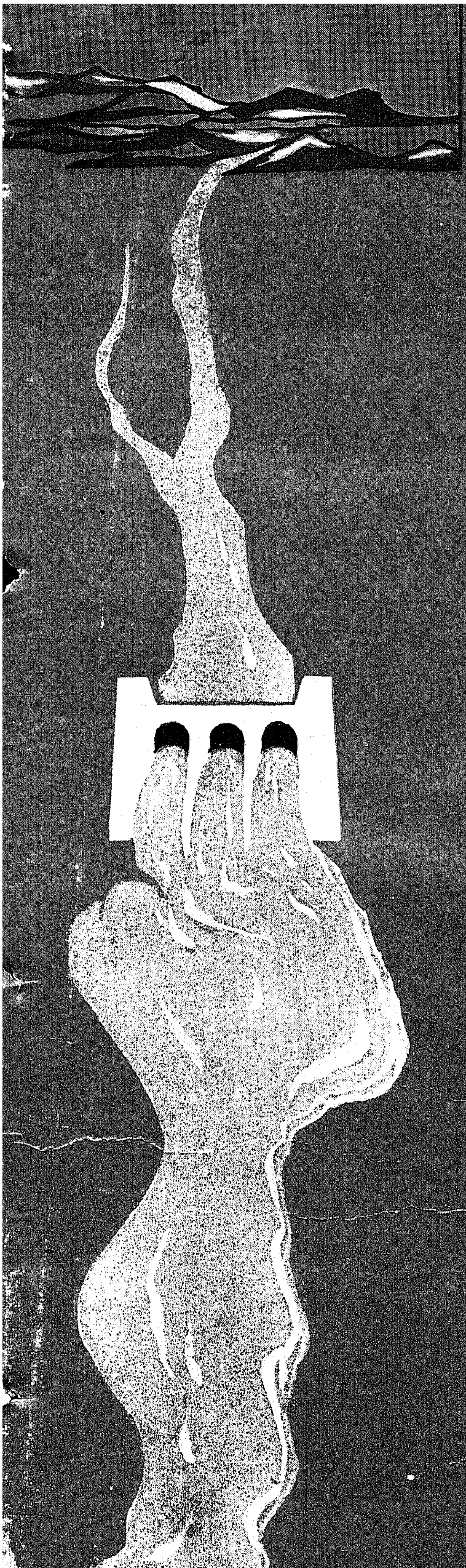

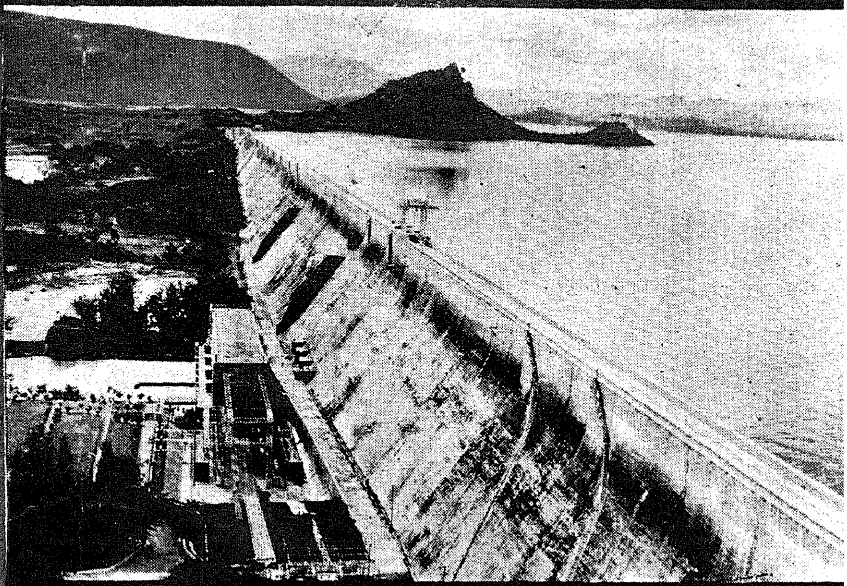

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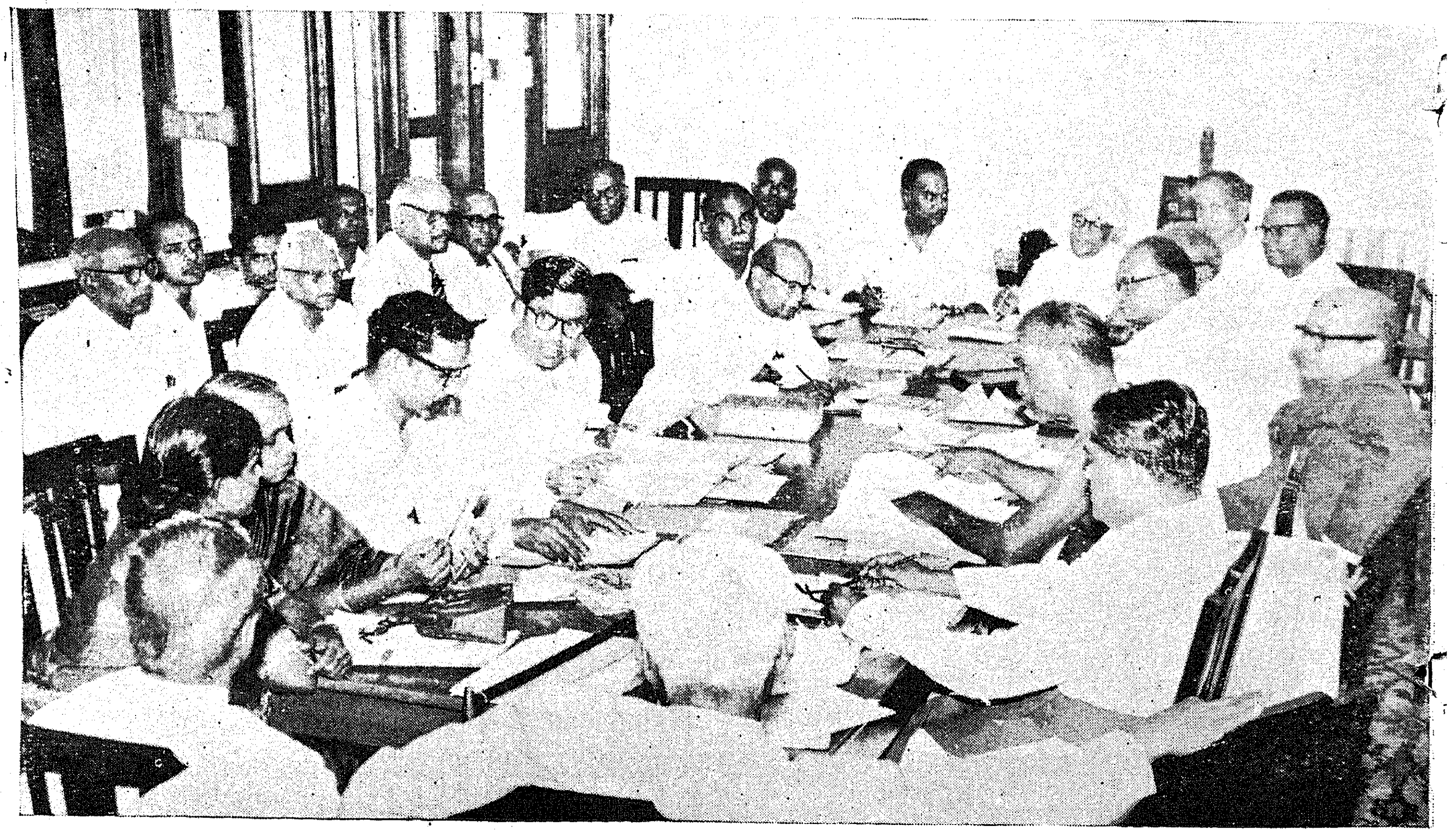
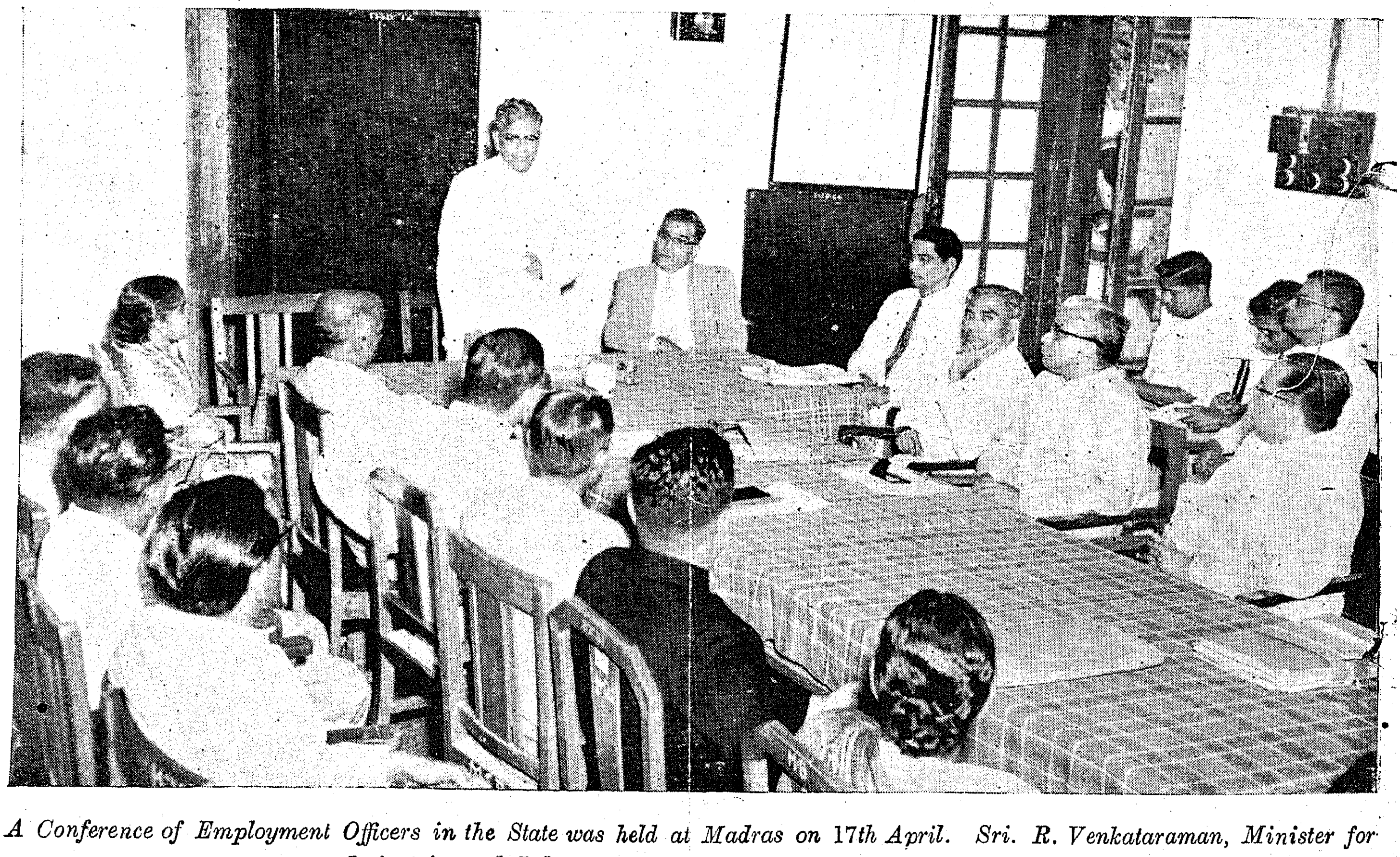


The First Meeting of the Tamil Development Council was held on 8th April 1959, Sri C. Subramaniam, Minister for Finance and Education, presiding.



A Conference of Employment Officers in the State was held at Madras on 17th April. Sri. R. Venkataraman, Minister for Industries and Labour, is seen delivering his inaugural address.

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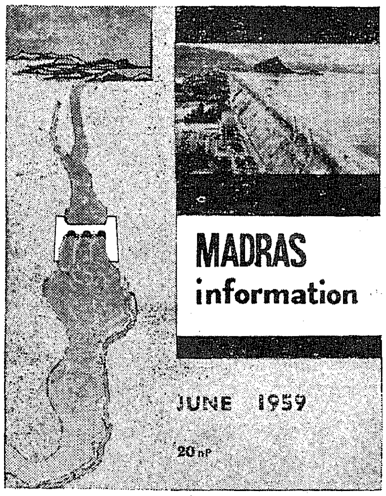
This month's cover:



Madras State has harnessed all its rivers for irrigation and power. This is a unique achievement which this State can well be proud of. On the cover of this issue you find a view of the Mettur Dam across the Cauvery.

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[The articles published in *Madras Information* may be freely reproduced.]

All the Rivers Harnessed

The ancient kings of South India evinced keen interest in providing irrigation facilities and vied with each other in building reservoirs, anicuts and channels. Almost every catchment basin in the South, however small, still bears traces of having been bunded across and even some large projects now stand in testimony of the enlightenment of those kings. The Grand Anicut across the Cauvery which is a marvellous piece of engineering even to-day is attributed to the period of King Karikala Chola (about 4th century A.D.). The Uyyakondan channel which takes off from the Cauvery is an interesting ancient work ascribed to Raja Raja Chola I. A large number of stone anicuts and channels across the Thambaraparani in Tirunelveli district were built in the days of the Pandya kings.

During the British Regime their first attempt was to improve the existing indigenous works before taking up construction of new projects. They also built new barrages and weirs across major rivers, e.g., the Lower and the Upper anicuts across Cauvery, the Sathiatope, the Pelandorai and the Toludur anicuts across the Vellar, the Palar anicut across the Palar, the Srivaikuntam anicut across the Thambaraparani, etc. They also built storage works such as Periyar, the Papanasam and the Mettur reservoirs.

In the post-war years, the problem of maintaining our growing population even at its present subsistence level has assumed staggering proportions. In order to grapple with the alarming food situation, the Government has to don the mantle of universal provider with the apparently inexhaustible water resources. India's history, as in ancient times, is being made in the valleys and basins of her rivers. Under the pressure of vital needs, big and small schemes irrespective of their financial considerations were launched under the First and Second Five-Year Plans. The schemes generally contemplate of cooping up large flood flows of rivers, though occurring only for a very limited period in reservoirs formed by building dams across the rivers and thereby bringing greater areas under the plough. Nine such schemes were taken up during the First Plan at an estimated cost of about Rs. 29 crores to benefit about 334,000 acres. Of these, the Lower Bhavani, Mettur Canals, Araniar and the Cauvery Delta Drainage Improvement Schemes were almost completed in the First Plan period itself or early in the Second Plan period. The remaining five schemes were continued during the Second Plan period and have since been completed. Of these, the Sathanur, Krishnagiri and Amaravathi Projects were completed and brought to beneficial use during the year 1957.

The Grand Anicut.

At about 16 miles below Upper Anicut, the rivers Cauvery and Coleroon are linked by Ullar. This Ullar, which must have been a breached course of the Cauvery (draining the floods of Cauvery into Coleroon) appears to have created some difficulty in maintaining the required supply in Cauvery. This difficulty was surmounted by the Chola Kings in about the second century by building up the Grand Anicut across the Ullar. It was built by the Raja Karikala Chola and dates back to second century A.D. The anicut formerly consisted of a solid mass of rough stone in clay, 1,080 feet long 40 to 60 feet in width and 15 to 18 feet high, stretching across the outlet in a serpentine form. "The old dam," effectively withstood the floods of 1,600 years by the mere inertia of its materials. Its main function was to retain the supply in Cauvery and its branches and pass the surplus into Coleroon. A portion of the crest was in oghee shape while the rest was with steps.

In addition to the construction of the anicut, the Chola rulers seem to have constructed flood embankments to the Cauvery and dug a number of channels and canals from the river thus laying a firm foundation for the pattern of irrigation that is obtaining now. Even though there was a steady progress under irrigation in this area, history does not record any further spectacular work. On the other hand, the whole system suffered deterioration owing to quarrels and intercene wars among the rulers. When the British took over Tanjore from the Maharattas in 1800, the irrigation works were in a badly neglected condition and the supplies received in the Cauvery were found totally inadequate and sporadic. It was, therefore, their first responsibility to look into the problems of delta and put it into proper order. In 1804, Captain Coldwell repaired the Grand Anicut and provided dam stones on the crest and at the same time raised the river embankments above the Grand Anicut, thus forcing more water into Cauvery. During subsequent years, the embankments of various rivers and channels in the delta were repaired and extended.

To protect the Grand Anicut foundations from scour a bed regulator was constructed for a length of 1,10[illegible] feet from the nose between the anicut and the scouring sluices on the upstream side with the object of deflecting the low water course away from the anicut toward the Vennar Regulator and thence to the scouring sluices.

As an outcome of the record flood of 1924, which was calculated to be of the order of 475,000 cusecs at the Upper Anicut, a road dam or byewash was constructed in the low padugai at about a mile upstream of the Grand Anicut on the left bank of Cauvery to serve as an escape for high floods. In the event of any extraordinary flood, this byewash would surplus about 98,600 cusecs into Coleroon, ensuring safety of the work at Grand Anicut to a considerable extent.

The Grand Anicut or "Kall Anai" as locally called in Tamil, is a name loosely applied to a group of work

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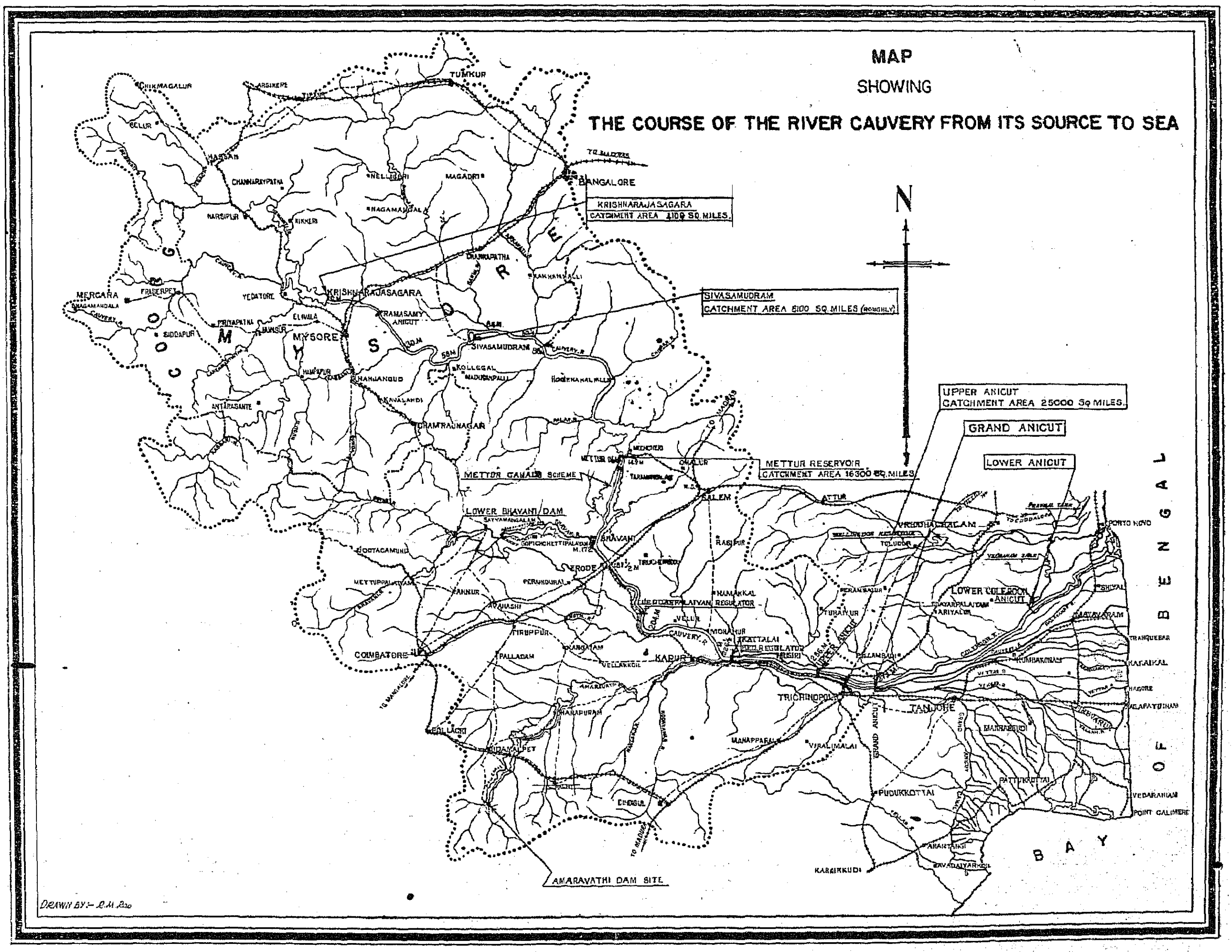
which comprise (i) Grand Anicut proper, i.e., the dam with the lift gates constructed across Ullar (described above), (ii) a group of scouring sluices, (iii) a group of regulators at the heads of Cauvery and Vennar which irrigate the old delta, and (iv) the new head sluice of Grand Anicut Canal constructed in the early thirties of this century. A small shrine dedicated to Shri Hanuman, the guarding deity, is located in the middle of the anicut. This shrine attracts considerable number of pilgrims.

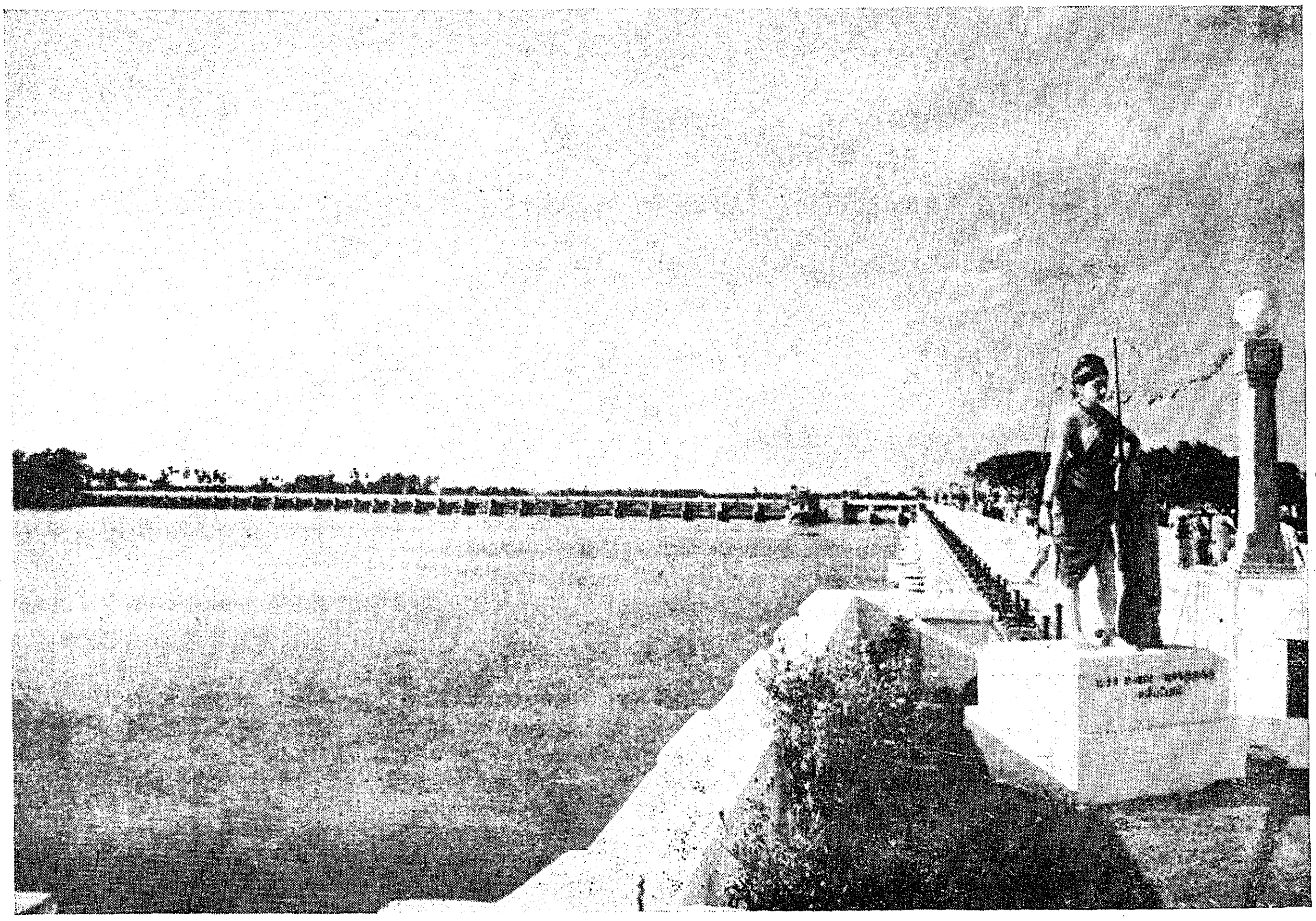
In the First Five-Year Plan the following schemes were taken up at a total cost of Rs. 28·91 crores to benefit 334,200 acres new and 130,000 acres of existing on which supplies were stabilized:—

1. Lower Bhavani Project.
2. Mettur Canals Scheme.
3. Cauvery Delta Drainage Improvement Scheme.
4. Manimuthar.
5. Araniar.
6. Amaravathi.
7. Vaigai.
8. Sathanur.
9. Krishnagiri.

Of all these projects, the Lower Bhavani Project is the largest and costs about Rs. 10 crores. The project comprises a reservoir of about 30,000 m.c.ft. across Bhavani river about 20 miles below Mettupalayam, to benefit 207,000 acres in Coimbatore district for cultivating cotton on half of the area and irrigated dry crops on the other half in rotation. The main canal is 124 miles long taking off from the right side of the reservoir. An area of 195,000 acres was thrown open during the year 1956–57 and the actual cultivation was 172,000 acres.

The next major project is Manimuthar in Tirunelveli district. A reservoir across the Manimuthar river 3½ miles upstream of its confluence with the Thambaraparani has been constructed. The capacity of th





A view of the Grand Anicut.

reservoir is 5,500 m.c.ft. On the right side a new canal 28 miles long is excavated to feed a large number of precarious rainfed tanks for irrigating through them about 20,000 acres. However the reservoir is mainly intended to benefit 83,000 acres of existing irrigation under the Thambaraparani system, which is subject to frequent failure due to dearth of water. The reservoir which cost about Rs. 505 lakhs has come into use in 1957–58.

The Mettur Canals Scheme located in Salem district consists of a canal from below the High Level sluice of Mettur Dam to irrigate 45,000 acres in Salem and Coimbatore districts. The design of offtake is so made that supply can also be tapped from the low level sluices of Mettur Dam when necessity arises. The canal on the west side of the river is 27 miles long. At about the fourth mile of the west side canal, a branch takes off and runs for about 39 miles after crossing the Cauvery by a pressure aqueduct. The proposal is to allow paddy and irrigated dry crops in rotation in alternate years. In any year 50 per cent of the area will grow paddy and the balance, irrigated dry crops in successive alternate blocks. The cost of the scheme is Rs. 183·00 lakhs. The work on the scheme has been completed. An area of 18,000 acres was given water for irrigation during 1955–56 and 31,500 acres in 1956–57. An area of 42,500 acres has been thrown open during the season in 1957–58.

In the Cauvery delta successful irrigation could not be done in many places due to drainage difficulties. The improvements contemplated under Cauvery Delta Drainage Improvement Scheme was to ensure better yield by relieving submersion of the areas under several drains.

The Araniar Project in Chingleput district is a small project costing about Rs. 104 lakhs. This consists of a reservoir across the Araniar river four miles west of Nagalapuram village and a pick-up anicut at Surutapalli 11 miles downstream of the dam. Canals take off both from the reservoir and from the anicut to benefit a new area of 3,000 acres and to stabilise supplies and also raise a second crop to the extent feasible on existing area of 13,600 acres. The construction has been completed. During 1956–57 supply was issued to 5,700 acres under Surutapalli anicut.

The Amaravathi Reservoir Project in Coimbatore district consists of a reservoir of 3,600 m.c.ft. capacity across the river Amaravathi. The dam is partly of masonry and partly of earth. A canal takes off from the left and runs for 40 miles to irrigate 15,000 acres. The existing irrigation of 32,000 acres under the river will also be assisted during periods of scarcity. The project was completed in 1958.

The Vaigai Reservoir Project in Madurai district has a capacity of 6,800 m.c.ft. This is across the Vaigai river to catch and store the surplus waters diverted from the Periyar lake. The dam will be partly in masonry and partly in earth. The new irrigation under the scheme is 20,000 acres. A canal 22 miles long has been excavated to the right side of the Peranai regulator to irrigate 10,000 acres. The remaining 10,000 acres are in the fringes of the Periyar delta and will be served by improving the existing Periyar canals. The project has also been designed to hold up the surplus waters of Vaigai river which were going to waste, and to release the waters to stabilise existing irrigation under the Vaigai. The scheme has been completed during 1958–59.

Sathanur Reservoir Project.

The reservoir is across the river Ponniar near Sathanur village in North Arcot district and has a capacity of 4,600 m.c.ft. with provision for increasing it to 8,100 m.c.ft. ultimately. The stored water will be let from the reservoir and picked up at an anicut across the river 4½ miles downstream. Irrigation will be by a canal 22 miles long from the left side of the anicut. The area to be benefited is 20,000 acres including 3,300 acres existing irrigated lands to which supply will be stabilised. The anicut was completed in 1956 and water was allowed for 1,150 acres in October 1956 and for 12,000 acres in October 1957.

Krishnagiri Reservoir.

This reservoir of 2,400 m.c.ft. capacity is across the Ponniar in Krishnagiri taluk in Salem district. The dam is partly of masonry and partly of earth. Two canals take off, one on the right and another on the left to irrigate about 7,500 acres which include 2,240 acres of existing wet. The ultimate ayacut under this reservoir has since been increased to 9,000 acres. The construction was completed in 1957.

Under the Second Five-Year Plan besides continuing the execution of the seven incomplete schemes of the First Plan, the following new schemes have been included:—

1. New Kattalai High Level Canal Scheme.
2. Pullambadi Canal Scheme.
3. Vidur Reservoir Project.
4. Schemes for diverting west flowing rivers (Parambikulam-Aliyar Project).

New Kattalai High Level Canal Scheme.

The proposals is to excavate a canal 86 miles long from a head sluice located just to the right of the off-take of the leading channel of the South Bank Canal

above Kattalai Bed Regulator across the Cauvery. It will irrigate 8,622 acres of dry lands directly under the main canal and 12,000 acres under the existing tanks of which 8,723 acres are existing wet lands. The total cost of the scheme is Rs. 156.65 lakhs.

The excavation of the canal is in progress in about 35 reaches in the first section of 40 miles. Thirty-seven bridges and 28 cross-masonry works have been taken up and work on these items is in full swing.

Pullambadi Canal Scheme.

This scheme consists of a new canal 54 miles long from above the Upper Anicut at the head of Srirangam Island on the left bank of the Cauvery. The scheme will benefit 22,114 acres in Lalgudi and Udayarpalayam taluks of Tiruchirappalli district of which 13,283 acres come under tanks and 8,831 acres direct irrigation. The total cost of the scheme is Rs. 142.43 lakhs.

The excavation of the canal in about 40 reaches in the first section of 25 miles is in progress. Fourteen cross-masonry works and six bridges are in progress.

In the case of cross-masonry works and bridges, about 70 per cent of the total work is proposed to be completed. Seventy per cent of the tank formation work and 50 per cent of land acquisition will also be completed.

Vidur Reservoir Project.

The project comprises a storage reservoir of 550 M.c.ft. across the river Varahanadhi about half a mile west of the Vidur village in Tindivanam taluk of South Arcot district. The river drains an area of 501 square miles at the proposed dam site. The reservoir will be formed by a dam constructed partly in masonry and partly in earth. The scheme will benefit a total extent of 3,200 acres including an extent of 1,000 acres in Pondicherry State situated at the end of a new canal taking off from the earth dam at the left flank. The length of the canal in the Madras State limits will be about ten and a half miles and about three-quarters of a mile, in the Pondicherry State limits. The cost of the scheme is Rs. 67.49 lakhs to be shared in the proportion of 11 : 5 between the Madras and the Pondicherry States.

The work has just been started. The following works have been programmed for the year 1958-59 :—

(1) Forming approach road to dam-site ;

(2) Construction of residential and non-residential buildings at dam-site ;

(3) Excavation of foundation of starting works ; and

(4) Excavation of main channel.

Neyyar Second Stage.

The Neyyar Project comprises the construction of a gravity masonry dam across the Neyyar river in the Kerala State at a place called Chempilamodu about 19 miles south-east of Trivandrum. The water thus

impounded will be utilized for irrigation of 34,100 acres by means of two channels one on either side. The right side channel 21 miles long will irrigate an area of 15,000 acres lying entirely in the Kerala State. The left side channel 24 miles long will irrigate 19,100 acres lying partly in Kerala and partly in Madras State limits.

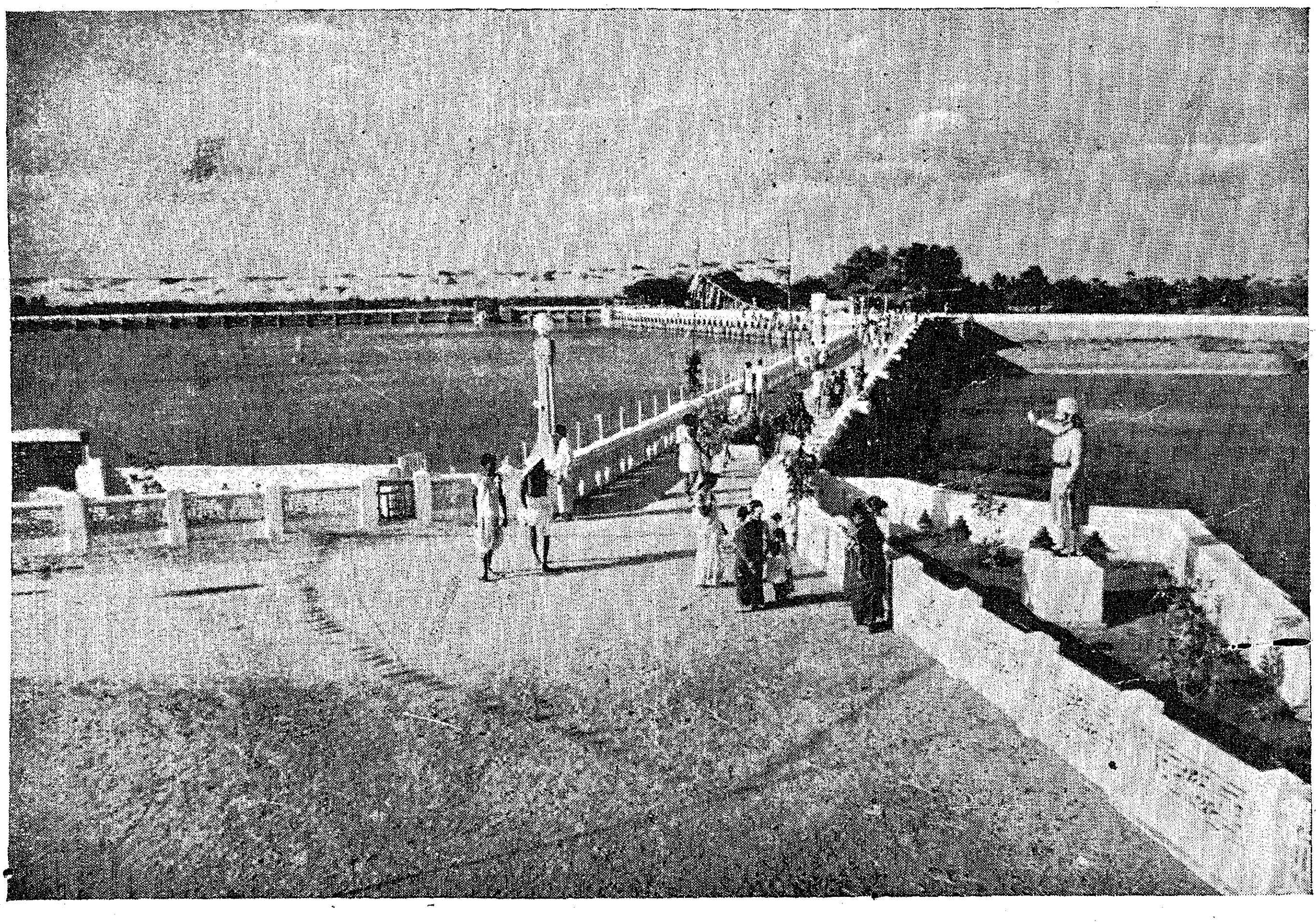
The first stage of the project comprising the construction of the dam and the right side channel has been completed at an estimated cost of Rs. 143 lakhs. The second stage comprising the construction of the left side channel system at a cost of Rs. 105 lakhs is programmed to be taken up during the Second Five-Year Plan period. This channel up to the 24th mile runs in the Kerala State and thereafter, in the Madras State. The actual area that will be benefited in the Madras State is about 10,000 acres in Vilavancode taluk of Kanyakumari district.

The channels and the distribution system lying in each State will be excavated by the respective State. Including the proportionate cost of the dam and the headworks provided by the Kerala State, the Madras share of cost of irrigating the 10,000 acres in their limits is about Rs. 92.28 lakhs. A sum of Rs. 27,0[illegible] lakhs has been provided in the Plan towards the cost of the scheme.

The channels in the Madras State are being realigned and redesigned to suit the boundary limits and the revision of designs made by the Kerala State and the work will be taken up shortly for execution. Preliminaries such as forming roads, construction of buildings, etc., are however already in progress.

Schemes for diversion of west flowing rivers (Parambikulam-Aliyar Project).

The Project contemplates the utilization of the waters of the Parambikulam river and other tributaries of the Chalakudi river which have their origin in Madras State and which after flowing over considerable distances in both the Madras and the Kerala States fall into the Arabian Sea. Two reservoirs will be formed on the Sholiar and one reservoir across each of the rivers Parambikulam, Peruvaripallam, Thanukadavu and Tekkadi. While the dams on the Sholiar river will be



Another view of Grand Anicut.

in the Madras State, the dam across the Parambikulam river will be in the Kerala State within three miles of the Madras border. The other dams are in the Malabar district in the Kerala State. The total catchment area of the rivers above the dam-site is 182 square miles (159 in Madras and 23 in Kerala State). Out of the total yield of 32,400 m.c.ft., only 31,000 m.c.ft. is proposed to be stored in the reservoirs. In addition to the above, reservoirs will be formed on the Aliyar (a tributary of the Bharathapuzha) and the Palar river (a tributary of the Aliyar) to impound the yield from their own catchments and also to serve as additional storage works for the present scheme. These reservoirs will be inter-connected by tunnels and open channels. The total length of the tunnels will be 5½ miles.

Contour canals for a total length of about 27 miles will be excavated from Sarkarpathi to the Palar and also from the Sholiar to the Parambikulam river. Pick-up weirs will also be provided at the crossing of the Aliyar.

Power will be developed at the exist of the tunnel connecting the Sholiar and the Parambikulam, at Sarkarpathi where the waters are delivered from the tunnel from Thunakadavu reservoir, at the crossing of the Aliyar by a contour canal and also at Aliyar Dam. The total power output will be 121,000 K.W. of installed capacity.

Irrigation canals will take off from the Aliyar and the Palar reservoirs and will irrigate a new area of 2.5 lakhs of acres in Pollachi, Dharapuram and Udamalpet taluks of the Coimbatore district.

The total cost of the project inclusive of power-house and generators but excluding transmission lines will be Rs. 32 crores.

An agreement has been arrived at with the Government of Kerala for taking up the scheme, as the river Parambikulam in its lower reaches passes through that State.

Khadi

Two lakhs forty-one thousand four hundred and sixty-six yards of Khadi worth Rs. 6,22,828.19 were produced and Rs. 7,32,762.36 worth of Khadi were sold in this State during the month of March.

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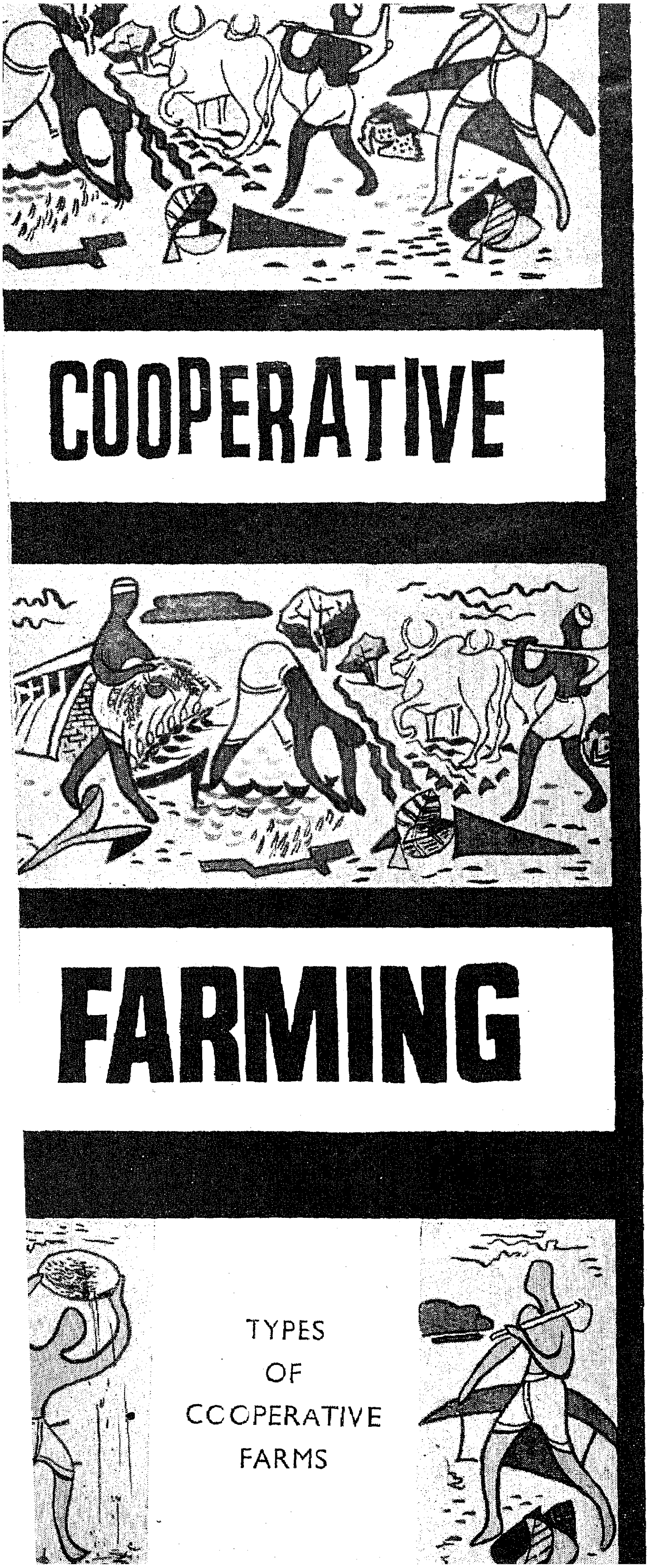

The anxiety of the Government to increase agricultural production and augment agricultural efficiency gave them an acute headache. They had to devise ways and means to cure this. The co-operative farming promises to come in handy for that purpose.

The Indian National Congress Party, therefore, passed a resolution in Nagpur which says: "The future Agrarian pattern should be that of co-operative joint farming in which the land will be pooled for joint cultivation, the farmers continuing to retain their property rights, and getting a share from the net produce in proportion to their land. Further, those who actually work on the land, whether they own the land or not, will get a share in proportion to the work put in by them on the joint farm.

"As a first step, prior to the institution of joint farming, service co-operatives should be organized throughout the country. This stage should be completed within a period of three years. Even within this period, however, wherever possible and generally agreed to by the farmers, joint cultivation may be started."

The proclamation of this principle has provoked vehement criticisms from various quarters. But it should be noted that it did not descend on the nation like a bolt from the blue. It has been in the air from the twenties. Gandhiji himself had been for this. He says, "I firmly believe that we shall not derive the full benefits of agriculture until we take co-operative farming. Does it not stand to reason that it is far better that a hundred families in a village cultivate their lands collectively and divide the income therefrom than to divide the land anyhow into a hundred portions? And what applies to land equally applies to cattle."

What exactly is co-operative farming? The term implies different things to different persons. It can, however, be defined as the co-operative operation of land, labour and capital for better production purposes on the basis of each for all and all for each. It stands midway between the ordinary type of better farming co-operatives under which these three instruments of production are left to individual operation and collective farming of the Soviet type where land and capital are nationalized and members simply get paid for work done.

There are four types of co-operative farming:—

(1) Co-operative Collective Farming Society,

(2) Co-operative Better Farming Society,

(3) Co-operative Joint Farming Society, and

(4) Co-operative Tenant Farming Society.

The classic example of collective farming is that of the U.S.S.R. Violence had its full sway there and the people were dispossessed of their lands. The Society holds lands by free-hold or on lease-hold. The lands are cultivated on the society's account by its members who are paid wages. The yield belongs to the society. The profits, after meeting expenses, are divided as in every other co-operative society and the members are

given a bonus on the wages earned. Here private ownership is abolished for good. Needless, to say, therefore, collectivisation is an anathema to those who enjoy the blessings of freedom. " It is better to be a Socrates dissatisfied than a fool satisfied ", said John Stuart Mill, passing animadversion on the hedonistic philosophy of Utilitarians headed by Jeremy Benthem. And we can say that it is better to have an empty stomach under a democratic regime than to have a loaded stomach under a regime wedded to collectivisation. Moreover, collectivisation is not suited to India, where individual ownership has existed from time immemorial and feudal landlordship as in Russia is practically unknown.

A co-operative better farming society can be defined as a society designed to introduce improved methods of farming. In this neither ownership nor cultivation is joint. Its members agree to follow a plan of cultivation laid down by it ; but they are independent of one another in other respects. They may, however, agree to joint purchase of seeds and manure, joint sale of produce and other joint efforts and the society may help them in these directions.

A co-operative joint farming society is one in which small landholders pool their lands and entrust them to the administration of the society. They then work on the pooled lands in return for wages from the society which sees to the cultivation of the land on its own account according to modern agricultural methods. The income from the pooled land, less expenses, constitutes the profit of the society. Each member is entitled to a share in the profit in proportion to the value of the land contributed by him. This recognizes individual ownership in the land. Each member will also have to pay for any improvement made in his plot of land.

A co-operative tenant farming society owns land by freehold or on leasehold, but the land is divided into small holdings, each of which is leased to an individual cultivator who is a member of the society and settles on the land with his family. He pays to the society rent for his land, if the lands are leasehold ; and revenue and other assessment, if the lands are Government lands alienated to the society. He cultivates the land on his own account and retains the profits thereof himself. The society assists him in his cultivation by supplying credit, seeds, manures, implements, etc., and by marketing his produce.

From this description of the various types of co-operative farming, it can be noted that though it bristles with many difficulties, they are not insurmountable. A very important aspect of co-operative farming in a country where, to quote Sir Horace Plunkett, " it is not a spontaneous growth but a Government policy " is the strength and training of the Co-operative Department. Sir Malcolm Darling's report last year and that of the Canadian expert Mr. Laidlaw pointed out several remedial features in the Government training schemes. Nearly all the recommendations have been accepted, which would definitely tend to mitigate the magnitude of the problems, involved in implementing the Nagpur resolutions.

There are, however, people who feel that co-operative farming would prove the thin end of the wedge leading to communism while some others consider the co-operative farming ideal utopian. Despite all this, it would be a great success if everyone, high and low, rich and poor, official and non-official, works like one possessed, without self or stain and, in the words of the Prime Minister, " goes from field to field and peasant to peasant begging them to agree with it."

[In the next issue: " PROS AND CONS."]

Buffer Stock in Rice

To arrest the upward trend in the prices of foodgrains, especially paddy and rice, the Government have decided to build up a buffer stock of 2 lakhs tons in terms of rice units from the main harvest.

The work of procurement and distribution to consumers later, through fair price shops will be done by the co-operatives.

The Government have also fixed maximum prices for the sale of the several varieties of paddy and rice in the State in wholesale transactions of more than 10 maunds at a time. Any sale at rates higher than those notified is an offence and the offender is liable to imprisonment for a term extending to three years and is also liable to fine.

The Government of India have issued the Madras Paddy (Export Control) Order, 1959, and the Madras Paddy (Transport Restrictions) Order, 1959. Under the Madras Paddy (Export Control) Order, 1959, no person shall export or attempt to export from any place in this State to any place outside the State except under and in accordance with a permit issued by the State Government or any officer authorized by the Government. Under the Madras Paddy Transport Restriction Order, 1959, no person shall transport or attempt to transport or abet the transport of paddy by road, rail or sea from any place in the district of Tanjore to any place outside that district except under and in accordance with a permit issued by the Grain Purchase Officer having jurisdiction over the place from which the paddy is to be transported.

Relief for Ex-Servicemen

Ex-commissioned Officers, their families and dependants who are in financial distress can seek assistance from the Flag Day Fund, Army Headquarters, Accountant-General's Branch, New Delhi. Prescribed application forms can be had from the Secretary of the District Soldiers', Sailors' and Airmen's Board concerned. Completed applications should be submitted to the Army Headquarters, New Delhi, through the District Soldiers', Sailors' and Airmen's Board of the district concerned.

RIGHT MAN FOR THE JOB

SRI R. VENKATARAMAN, Minister for Industries and Labour.

The Organization of a free Public Employment Service owes its origin to an I.L.O. Convention as far back as 1919. The last global war brought the problem of unemployment into focus and the result was the recommendation of the Philadelphia Convention in 1944 which *inter alia* restated " the need for full employment and raising the standards of living, the employment of workers in the occupations in which they can have the satisfaction of giving the fullest measure of their skill and make the greatest contribution to the common well-being ". The 'right for work' flowing from this Convention has been enshrined in our Constitution as well. It is, therefore, in the fitness of things that the Government of India, particularly after the attainment of independence in 1947 accepted this recommendation in principle and organized a net-work of Employment Exchanges.

After independence in 1947, the country addressed itself to the issues of national and economical reconstruction. The demands of a growing economy have have been so great that the employment service had to be reviewed in the light of the increasing needs of the community. To carry out these readjustments and to fit the Service into a scheme of effective action, the Government of India set up an Employment Service and Training Schemes Reorganization Committee. Realizing the need for a sustained National Employment Service in the country, the Committee recommended the transfer of the administration of the service from the Centre to the States. In November 1956, this decision was given effect to. Thus, the National Employment Service became a part of the State Administration set-up. This change has helped an intensive reappraisal of the problems and much headway has since been made.

The State set-up of the National Employment Service has a Director as the Chief Executive, who is the Labour Commissioner himself. At the Head-quarters, he is being assisted by a Deputy Director and an Assistant Director and two officers to plan and execute the manpower schemes. On the day of transfer of administration, the Field Offices consisted of 12 District Employment offices. In March 1958, another District Employment office was opened at Nagercoil to cater to the needs of the people of the Kanyakumari district. To-day, there is an Employment Office in each district in the State in charge of a trained Employment Officer with complement of staff.

It is gratifying to note that there has been a steady increase of work since 1950. Registrations of applicants, placings of candidates vacancies, the number of employers using the Exchanges and the number of applicants on the Live Register have steadily increased from year to year. The increase has been marked from the period of the transfer of the administration to the State Government. All this confirms the useful role that the Employment Service plays in the economic life of the State. Though the increase in the number of applicants remaining on the Live Register during 1957-58 is a melancholy picture, the fact remains that the Service is commanding greater confidence of the community. The increase in the number of placements and the increase in the number of employers using the Service indicate the growing awareness among the employing public about the utility of a rational institutional system of recruitment. I only hope that this small beginning will grow from strength to strength and the traffic in the employment exchange will draw more employers and more vacancies.

The function of an Employment Service is something more than routine. Dealing as it does with manpower problems, it is sensitive to changes that occur from time to time. The service has to be dynamic and should keep pace with the trends in the employment market. The International Labour Organization recommendation of 1944 and later the Shiva Rao Committee emphasized this new dynamism inherent in the employment service and advised the implementation of essential manpower schemes without which placing activity will largely remain placid and pointless.

The Scheme to collect employment market information is basically a continuing study of the employment market. The programme envisages a study of the relationship between supply of and demand for labour, the changes in the level of employment, occupations, in which shortage is experienced, labour turnover and other factors that affect the employment market from time to time. The collection of data is done in each district and periodically are a market reports are presented. This would enable a reasonably correct assessment of the conditions that obtain in the employment markets at local, regional and national levels. The Scheme will also enable the planners to forecast the future trends in the employment market on the basis of which, manpower and employment policies could be adjusted. Thus, this market intelligence will make a very valuable contribution towards a full employment policy which remains the force of our development plans and the fulcrum on which the welfare of the people rests. The Scheme has been in force

for about a year in the State and valuable materials have already been collected. Two quarterly reports about the Coimbatore Employment Market have been published and they contain a fund of information which cannot be lost sight of by the employers, employment seekers and the planning authorities.

The Scheme relating to the Occupational Research and analysis is being developed through the co-operation of technical experts and workers, industry and Government. It attempts to standardize the definitions, skills and functions of the different occupations. The end product of the scheme is the publication of a comprehensive occupational dictionary. In a country like ours, where different nomenclatures for the same occupations are prevalent, the standardization of occupations will organize and marshall occupational intelligence on a more rational and knowledgable basis. This scheme also prepares National Classification of Occupations, Career Pamphlets, Occupational Field Reviews, Occupational Specifications and Interview Aids and Handbook on Training facilities. The utility of these materials to the Employment Service in particular and to the career master, educational institutions and other vocational guidance centres in general cannot be overestimated.

The scheme to impart vocational guidance and adult counselling to school-leaving adolescents and adults whose occupational adjustments leave something to be desired, is particularly concerned with the conservation and utilization of the available manpower resources to maximum extent possible. In other words, it aims at the development of our labour force, so as to achieve the optimum level of production and sustain the maximum level of economic activity. When it is fully developed, it will help in elimination of manpower wastage.

The principal objectives of our economic development are—

(1) to increase the national income which would raise the standard of living;

(2) rapid industrialization with emphasis on the development of basic industries;

(3) a large expansion of employment opportunities; and

(4) a more even distribution of economic power.

These are inter-related. In a country, where there is relative abundance of manpower, expansion of employment opportunities becomes an important objective in itself, within the framework of certain basic social values and purposes. A balanced pattern of industrialization, therefore, requires a well-organized effort to utilize manpower for increasing the national wealth.

Creation of employment is tied up with investment. In fact, employment is one of the major considerations in determining our pattern of investment. The creation of employment opportunities, however, cannot be approached merely in overall terms. The problem needs to be broken up into terms of sectors, regions and classes. Diversification of the industrial pattern, a suitable policy on location of industries, special measures to assist cottage and small scale industries, maintenance of high level of economic activity, provision of adequate training facilities, measures to promote occupational and territorial mobility of labour, development of competent techniques of recruitment and personnel management are elements in the programme of creating new employment on a requisite scale.

Continued growth of national income and employment require simultaneous development over the whole range of our economy. It is exactly here that the Government attaches great importance to the development of the National Employment Service, as a machinery providing effective answers to these problems that come incessantly in the employment market. No doubt, employment offices cannot create employment opportunities but the fact it can, through its placement service and through its market intelligence, provide the materials, is a measure of its importance in the national economy. It is only through an effective employment service can territorial and occupational mobility of workers be ensured, hiring practices improved and recruitment techniques rationalized. In other words, the employment service provides the machinery which alone could bring order and system into an otherwise chaotic employment market. Our employment policy, therefore, attaches a good deal of importance to the development of the national employment service and to make it an effective instrument for regulating the market and achieve the optimum results.

Placement is not the only function of the employment service, though it is an important aspect of its work. More often matching of workers with the jobs is construed as a mechanical operation. Nothing could be farther from the truth. With the growing complexity of our economic life and with the recruitment of workers from as wide a range as possible, placement has become more or less a professional task calling for technical perfection and an intimate knowledge of the intricacies of the jobs and men. As you know, the wrong man in a job is a double tragedy. It is neither good for the man nor for the industry. To have an efficient placement service, one's horizon must be as wide as possible. This would mean a complete knowledge of the area as well as the population thereof. It is, therefore, of supreme importance that the National Employment Service, in addition to its placement work, should continue to map out the area systematically and keep its knowledge of the people of the place current. Manpower planning and surveys conducted with reference to industries and level of skills will enable us to strike norms for major industries with particular reference to the different occupations required to man them. It will indicate the input-optput ratio in each industry and also help to arrive at the exact relationship between a given unit of resources and the determined amount of production. When such a ration and relationship is established, planning will be easier and more effective over a period of years. Perspective planning has now been accepted as a central theme of our development particularly with reference to our manpower. These norms under certain conditions will help us to plan for the future with greater objectivity.

[Excerpts from the speech delivered at the first meeting of the State Employment Advisory Committee, Madras.]

Propagation of Fish Culture in Rural Areas

DR. P. I. CHACKO, Fisheries Marketing and Information Officer.

It was fifty years ago that the Madras Fisheries Department commenced a programme of conservation of the aquatic resources of the State. Though the early years were devoted to an investigation of the conditions of the fisheries of the East and West Coasts, the cultivation of useful fishes was soon taken up and quickly attained large proportions. The first fish farm was established in the year 1909. As the importance of the work became increasingly evident year after year, more farms, hatcheries and nurseries have been established and new kinds of fishes have been added to the output.

Water Sources.

Making the best use of every acre of water is the foundation of a sound conservation programme. Where a suitable waterspread exists, no better use can be made of it than to develop it for the production of an ample supply of protein and vitamin rich food, namely, fish. This is especially true at the present time, when food production is more important than ever, and a well-balanced diet is essential to improve the people's health. Fresh fish taken at any time from a readily accessible pond can form an important part of the country's diet. Most villages have ponds, tanks and wells which, if properly utilized by farmers, would provide both pleasure and profitable returns.

Technique.

The technique of fish-pond management is simple and consists of (1) selection and preparation of the pond, (2) selection and stocking of the fish, (3) feeding the fish and manuring (4) care of the fish and (5) reaping the crop. All kinds of ponds, whether perennial or seasonal, could be utilized for the culture of fish. In the case of semi-perennial waters, there is need for digging a subditch for the fish to retreat during the summer months. The outlets, if any, should be properly screened to prevent the fish from escaping through them, especially during the monsoons. Control of the growth of vegetation, both emergent and submerged, is also necessary. While the removal of water-hyacinth and grasses is advisable, tender plants like Hydrilla, Vallisneria, etc., should be retained. They serve as food for the fish and also help to aerate the water. A certain amount of surface vegetation is necessary to provide shade for the fish ; but in no case should it be allowed to cover the entire water surface. The enemies of the fish, such as snakes, tortoises and frogs, should be eradicated either by repeated netting or by drying the pond completely.

Fresh-water Species.

Fresh-water fishes that are best suitable for culture in ponds are the major carps such as the Catla, Mrigal, Rohu, Kalbasu, Fringe-lipped Carp and the White Carp, all of which are quick growing, reaching a size of 1½ to 3 feet in the first year. But these fishes breed only in rivers during the rainy season. The factors affecting their spawning are rainfall, cloudy weather, floods, cool temperature and moderate flow of water. The breeders often congregate in shoals in selected favourable areas and shed their reproductive elements. The fertilized eggs on absorbing water swell up to a size of 4 to 5 mm. in diameter and float at the top layer of water as glistening bodies. As they get drifted down the rivers, development takes place, and the larvae are hatched out within 18 to 24 hours. The rivers are therefore the main sources of fish-seed required for transplantation into departmental farms and public waters. For the systematic location and exploitation of spawning grounds of carps, special River Survey Units are maintained by the department since 1942.

Salt-water Species.

The water of river-estuaries is brakish owing to tidal influence. This aids the immigration of many species of sea fishes into fresh waters by gradual adaptation to the transitional conditions. Many sea-fishes resort to this area for breeding purpose. The fauna and flora of the estuaries are very rich and provide food for the fishes and consequently produce a valuable fishery. The estuaries abound in prawns, shrimps, crabs, oysters, clams and whelks. The young of estuarine fishes such as the Pearl-spot, mullet, Milk-fish, Bekti, Indian Salmon and the Rock perch could be easily acclimatized and reared in fresh waters. In recent years such acclimatization has been practised on methodical lines.

Exotic Species.

Valuable exotic foot fishes such as the Gourami (Java), Mirror Carp (Prussia), Golden Carp and Tench (Europe) and Tilapia (Africa) have been introduced, and they are found to thrive and breed in the State waters. These imported fishes are now being distributed in different waters in the upland and lower elevations. Fingerlings of Gourami, Mirror Carp, Tilapia can now be supplied to the public in large numbers. A popularization scheme for these species is in progress in many of the districts. Taken as a whole it would seem that the introduction of alien fishes was a good investment. The cost was only a few thousands of rupees and the returns are now worth many thousands.

Demonstration Centres.

With a view to assisting pond owners and prospective fish farmers, Rural Fishery Demonstration Centres have recently been opened in the State to survey all cultivable waters and their fishery resources and to organize

demonstration farms for facilitating fish seed distribution and for imparting instruction on fish-farming to interested ryots. To make every acre productive of the crop that can yield best, the farmer will want to stock properly and manage his pond for a good crop of food fish. Fishlings are sold at the demonstration centres at nominal rates.

Fish Seed Supply.

The public have commenced to show great interest in fish culture. The growing demand for fish-seed is suggestive of the great popularity of this enterprise of the Fisheries Department. In 1957-58, 3½ crores of fish seed were distributed in the various inland waters in the State.

Researches.

The aquatic environment provided by a pond or tank is rather complicated. Yet it lends itself readily to investigations and management. The plants and animals in a pond are dependent, directly or indirectly, upon the gases and mineral nutrients in the water and in the soil that forms the bottom of the pond. The composition of plant and animal species may be altered by selective removal or addition and by other management practices. The fertility may be increased by adding fertilizers. Hence for the systematic utilization of the various inland waters, it is necessary that useful conclusions are obtained through a broad-based programme of fresh water hydro-biological research. The life history of species of fishes of economic value should be understood from beginning to end, but no less requisite is it to know the histories of the animals and plants upon which they feed or upon which their food is nourished, the history of their enemies and friends and foes of their enemies and friends, as well as the temperatures and other physical and chemical phenomenon of the waters in relation to migration, reproduction and growth. In pursuance of this policy, the Fisheries Department maintains a Fresh-water Biological Station at Bhavanisagar for the prosecution of researches on rural pisciculture. The results of work so far done at this station have been of considerable practical value in promoting breeding and culture of several species of fish in varied types of waters.

Production achieved.

There are four lakhs of inland waters in Madras State and the total production from these in 1957–58 is 40,300 tons. By more intensive piscicultural operations, the production can be increased considerably. It is expected that fish-farming will soon become one of the main rural industries in the Madras State, for fish constitutes a basic food resource and an important and necessary item of diet which is just as vital in many instances as agricultural products.

Metric Scales for Fish

The Government have directed that all fish-curing yards in the State may be provided with weighing machines with metric system. The Director of Fisheries has been authorized to convert some of the

existing machines into the new system and also to buy a few new ones. A total expenditure of Rs. 6,000 has been provided for this purpose to be incurred during 1959-60. The Government have also sanctioned another sum of Rs. 35,000 towards the cost of remodelling the fish-curing yards in Kanyakumari district in order to provide for protected storage facilities at the site.

Employment Situation in Madras State in March 1959

The employment situation in the Madras State during March 1950 did not show any significant change. While the districts of South and North Arcot, the Nilgiris, Ramanathapuram and Tanjore showed unfavourable employment trends, Coimbatore, Kanyakumari, Salem and Chingleput recorded some improvement. The situation in the other districts remained almost static.

Fifteen thousand seven hundred and forty-seven registrations have been reported as against 15,947 during the previous month. Vacancies notified during March were 2,565, compared to 2,937 in February. Similarly placings also decreased from 2,607 at the end of February to 2,230 during March 1959. On the other hand, the number of employment-seekers on the active rolls of the Employment Offices showed an increase from 115,322 at the end of February to 118,353 at the end of March 1959. There has been no significant change in the occupational pattern of the Live Register.

While the pressure of applicants on the employment market continued to increase, there were local shortages of suitable personnel to fill vacancies. Demand for Engineering and Medical Graduates, Draftsmen, Nurses, Health Visitors and Precision Tool-makers persisted in the districts. On the other hand, some of the shortages were only local, such as Earth Moving Machine Operators in Kanyakumari, Pipe-line Fitters and Chemist in the Nilgiris, Machineman in Tanjore, Boiler Attendant in Coimbatore and Social Workers and Salesmen in Tiruchirappalli district.

The manpower schemes in the State continued to progress satisfactorily. The State Occupational Information Unit has since completed original work relating to " Other Professional and Technical and related workers ". Field work is in progress with regard to the occupational group of " Draftsmen and Science Engineering Technicians ". The Employment Market Information Programme completed the fourth round of enquiry during the month. The Coimbatore Market Report for the quarter ended 30th September 1958 has since been finalized. Preparatory work to start on the fifth round has been completed. The response of employers, based on voluntary co-operation, has been encouraging. The Youth Employment Service attached to the District Employment Office, Madras, rendered vocational guidance to 778 youths, of whom 13 were guided individually. Close liaison has been maintained with interested agencies in the field of employment and training.

Small Savings

The new ideology

SRI M. SHANMUGAM, Special Officer for Small Savings, Government of Madras.

The intensification of the Small Savings Movement was taken up as part of the State Development Programme during the year 1957–58. The call for savings evoked generous response from the citizens of Madras State and a total net small savings collections of 7·85 crores was recored in the year—an all-time high for Madras State. This was the measure of the people's support for this voluntary democratic movement. The creation and grooming of a closely-knit rural agency force in reinforcement of an existing thin agency squad heralded the Small Savings Drive in the State. It may safely be estimated that the satisfying message of Small Savings had been successfully carried last year to over 6 lakhs of homes in Madras State, considering that over 8½ lakh numbers of savings certificates were sold during the period of the State Drive. The creation of a favourable savings climate through the dissemination of plan consciousness and of the virtues of thrift has really been the core of the State effort. A wave of public enthusiasm greeted the movement. The media of song, villupattu, film, discourse and drama contributed variously to the rapid mobilization of rural savings for the first time in the history of the small savings movement which had remained hitherto as mainly an urban middle class movement. Cinema slides, hoardings, posters and scheme literature proclaimed the small savings movement in all places of public resort. State officials, non-official leaders of public opinion, the Women's Savings Campaign and the National Savings Organization worked ceaselessly to put Small Savings on the State map. The Mobile Postal van with commendable pioneering zeal carried the Post Office Savings bureaux to the homes of simple folks and thereby endeared the movement to the rural population. Purposefully conceived and well-directed publicity calculated to educate people in the value of thrift, self-reliance and public co-operation naturally proved a mystic source of mass persuasion. The participation of organized industrial labour through management co-operation in Coimbatore—yet another first in Madras State—will doubtless serve as a beacon for expanded participation of labour all over the State in the movement.

The concept of thrift as a way of life is basic to the Savings Movement; it is its mainstay. Monetary and economic discipline expressed in the popular saying "Take care of the pennies and the pounds will take care of themselves", constitutes cardinal savings doctrine. He who will not economize will agonize said the wise Confucius. It was Benjamin Franklin who proclaimed—"Frugality is an enriching virtue. I was once lucky enough to find it in a wife who thereby became a fortune to me". It is not, however, to be mistaken that the Small Savings Movement seeks to enthrone or glamorize the miser in place of the spendthrift. The Movement seeks to educate people in the virtue of prudently husbanding one's resources with a view to obtaining maximum value therefore. In this sense thrift makes for organized living and is a specific for the all too common malady of perpetually running out of cash. The practice of thrift requires effort and such effort predicates strength of mind for resisting temptation to spend thoughtlessly and therefore contributes to the moulding of character. The Small Savings Movement is thus in effect a thrift crusade. The stimulation of thrift might in itself constitute nation-building activity.

The Small Savings Movement places reliance for the first time in Indian history on the Small Savings of the many rather than on the large surpluses of the few. The amassing of a sizeable segment of the public debt in the hands of myriads of individuals or broad-basing the internal public debt is facilitated and this makes for a purposeful trend towards an egalitarian society. The Movement is therefore the vehicle of the socialistic pattern of society and affords documentation of its translation in terms of Economics. The countless men and women of small means in the country are enabled to acquire a stake in the country. It offers people the invaluable sense of belonging and of being partners in enterprise. The Small Savings of the little men and women, of you and I, at first but a trickle soon forms into a gushing stream to irrigate national economy. The Movement is, therefore, an apparatus of social engineering, a sociological process and is an expression of a major swing in social philosophy. By bringing the bul of the people into the channel of capital formation, the Movement transforms itself into a potent instrument of capital finance. The Movement fosters public interest and participation in national development. The Savings Service extends a standing invitation to every citizen to become a co-sharer in the country's prosperity. Put differently, it is an exercise in co-determination for given the co-operation of the people, scarcely a goal is impossible of achievement. It is no eccentricity of philology to say that the Small Savings Movement represents the ideology of the common man. After all

Co-operation in Printing Industry

Sri V. BALASUNDRAM, I.A.S., Registrar of Co-operative Societies, Madras.

The application of the co-operative method to the printing industry began as early as 1919, but it did not make much headway as in other fields of economic activity in which co-operation was introduced particularly in the field of rural credit. After the first co-operative printing works was started in the year 1919, at Madras the second was started only in 1927, at Tanjore. The press at Coimbatore is one of the two co-operative printing presses started in the year 1933, the other one being Pudukottah Printing Press. For 14 years after this society was started, there has been no activity in this direction in this State till 1947 when the Salem Co-operative Printing Works was registered. Thereafter, two other co-operative printing works were started one at Madurai and the other at Vellore in the years 1951 and 1953, respectively. To these seven co-operative printing presses in this State, one more was added when a part of the Travancore-Cochin State was included in our State consequent on the State reorganization.

There are eight co-operative printing presses with 2,655 members (both societies and individuals). They have a paid-up share capital of Rs. 2·30 lakhs and they own machinery worth Rs. 3.68 lakhs. They execute printing, binding and other works to the value of Rs. 6 lakhs per annum.

Co-operative printing presses in this State have been formed as consumers' organizations. With the phenomenal expansion of the co-operative movement, the growth in the number of societies and the variety and volume of their transactions there is bound to be a corresponding increase in the demand for various kinds of books and forms, stationery, etc. The many sided growth of the movement must naturally give increased business to the co-operative printing presses. Each district must have at least one co-operative printing press to serve the needs of all the co-operative institutions in that district. I hope that in each of the districts, in which there is no co-operative printing press, steps will be taken to form one.

I am happy to see that this press has a uniform record of good service for the last 25 years. Started in 1933 with 31 members and with a paid-up share capital of Rs. 2,160, this press has maintained a steady progress, a membership now being about 700 and a share capital about Rs. 55,000. While the value of works executed in the first year amounted to Rs. 3,500, this press is now able to turn out work to the value of about Rs. 2¼ lakhs. This press has earned a name for the fine quality of printing and binding and every one has been impressed by the excellent standard and workmanship which has been steadily maintained. This press stands as an example for other co-operative printing presses in the State and I congratulate the Board of Management, present as well as the past, and the officers and the workers who have contributed to the growth and efficient working of the press.

[Extracts from the speech delivered on the occasion of the Silver Jubilee celebrations of the Co-operative Printing Press at Coimbatore.]

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this is the Age of the common man. In a country with a bountiful population such as ours, one can easily visualize the almost staggering financial possibilities of such an ideology. The democratisation of savings and the new-found status of the small savers as the pillars of State credit are the inevitable consequences of the Movement. Small Savings affords to every citizen howsoever humble the psychological satisfaction of equality of sacrifice.

The Small Savings Movement helps to fight and check Inflation. It emphasizes the need to compress consumer spending and to siphon away excess purchasing power in the hands of the people into creative channels. This helps to stabilize the purchasing power of the currency and to hold the price line. Consumer spending sprees are to be contained. The Movement advocates the avoidance of waste of all kinds and the postponement of discretionary expenditure so as to achieve larger satisfaction from such expenditure at a more favourable date. It emphasizes the need for some kind of fiscal dieting for securing the continued economic health of the individual

The Movement well recognizes that austerity in consumption is a prime need and promotes the habit of wise spending. But with a development programme giving rise to a whole set of small new incomes the curtailment of consumption is no easy task. It is unfortunate that while there are a host of ways to spend money, there is but only one way to save it, and that is by not spending. Small Savings offers a solution and an avenue.

The Movement buttressess respect and reverence for the small coin in the realm by focussing public attention on its snowballing potential.

The Small Savings Movement partakes of the dual qualities of protective and productive saving. It gathers in savings and renders them fruitful. By saving primarily for one's self and near ones, it incidentally ensures for the benefit of society as a whole. Small Savings like the quality of mercy is twice blest; it blesseth him that gives and him that takes.

May your Savings grow.

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MADRAS

Madras Coral Fisheries

SRI V. D. SPURGEON, Deputy Director of Fisheries, Madras.

It is common knowledge that sea covers three-fourths of earth's surface. But the sea is so vast that one cannot easily comprehend its magnitude being 140 millions of square miles in area. To a layman the sea appears as a huge barren waste. But the largest animals and the tallest plants grow in it. Millions of organisms in varied shapes, sizes and hues live in the unfathomable depths. Almost every life in the ocean is of commercial importance. The food fishes like Seer, Pomfret, Cock-up, Jew-fish, Bombay-duck and Leather-jacket, oil yielding ones like Whales, Sharks, Cod and Sardines, chemicals like Iodine, Salt (sodium chloride) and Algin, precious objects like Pearls, precious Coral, Pearl essence, sponges, agar-agar, ambergris, turtle-shell, conch shell, etc., are all wealth from the sea. Of these *Coral* is not much spoken of in India much less in our State.

What is a Coral?

In early times, *Coral* was taken for a seaweed. Naturally the elegant branches of the stem planted in the sandy bottom misled the early workers. Due to advancement of marine science it is now definitely known that *Coral* is an animal. A *Coral*, though outwardly appears to be a single individual bears a great number of organisms—the polyps—held together by Calcareous secretions. The *Coral* does not seek light but is capable of living in great ocean depths as well as in shallow margins around Islands carrying out all the normal work of an animal.

Different kinds of Coral.

There are varieties of *Corals*. These are classified by marine biologists into different families according to their underlying likenesses. Among them are fan-shaped, pen-like, cup-like, mushroom-like, brain-like, horn-like, claw-like and flower-like *Corals*. These varieties never fail to impress even a casual observer. *Corals* with elegant spreading branches and others with geometric designs are not uncommon. The colouration of pink, yellow, green, brown or purple is yet another fascination of these lovable creatures. There is an almost infinite variety in form and colour among *Corals*.

Important Coral Fisheries.

Important *Coral* beds lie on the Algerian and the Tunisian Coasts. Near Sicily also good *Corals* are reported to be available. The control of *Coral* fisheries in the Mediterranean passed hands among western powers in early times. *Coral* fisheries on the North African Coast were highly renowned in the middle ages. In the Red Sea there is black *Coral* Fishery. The Japanese *Coral* fishing industry is known to be of high standard. Many of the Pacific Islands are formed entirely of *Coral* rock. The great Barrier Reef consists of gigantic masses of *Coral* rock fringed by living *Coral*.

Uses of Coral.

Of course precious *Coral* is for jewellery. The working up of *Corals* into ornaments is an Italian Art. It is said that there are 600 establishments in Italy for *Coral* ornaments. *Corals* are mostly cut into beads to be strung as necklaces, bracelets, armbands and rosaries.

As said above *Corals* display all fancy shapes, sizes and colours. As such they are excellent articles for decorating drawing rooms, public halls, private apartments, and to serve as paper weights and curios.

In Turkey *Corals* are employed freely for many objects such as pipes, weapons and the trappings of horses. *Corals* are popular in North Africa with the exception of Egypt. Persians set them in amulets, necklaces and garters. They make a religious use as gifts to the dead as *Corals* are believed to keep evil spirits aloof from their bodies. The clever trader is often able to exploit the ignorance and superstition of local population to his advantage. While perfect *Corals* were exported to China for use as buttons in caps, tons of worm-eaten beads found a ready market in India because certain people were led away by a blind belief that the evil spirits took up their abode in the little cavities of worm-eaten *Corals*. Thus what was worthless in China and elsewhere found a market in India.

While the *Coral* used in jewelry is only one species, there are scores of others among *Corals* which also have certain commercial importance. Because the main component in the body tissues of *Corals* is Calcium Carbonate (lime) the *Corals* can be made to yield this important chemical for various industrial purposes.

Coral Fishing at Tuticorin.

At Tuticorin on Tirunelveli Coast *Coral* Industry is steadily gaining ground.

The Gulf of Mannar, peculiarly enough, has many Islands along the Tirunelveli and Ramanathapuram Coasts. These are of *Coral* origin. *Coral* colonies having existed in these spots from time immemorial have grown thick and massive. To these were added sea debris and sand. Thus slowly these colonies formed themselves into Islands and are seen opposite to Pamban, Kilakari and Tuticorin in our State. Because they are *Coral* in origin, they are veritable sources of Calcium Carbonate.

In Tuticorin within about three and five miles from the shore are the Hare and Church Islands, respectively.

Over the Islands and up to two fathoms (12 feet) depth around the islands broken bits of *Corals* are commonly met with. The fishermen call such loose and broken bits of *Corals* as " Challi ". Unskilled fishermen who cannot go to deep water for *Coral* fishing, and children gather the " Challi " along the shore and in neck deep water. One hundred men and children are engaged throughout the year in this collection. Nearly 5,000 boat loads of " Challi " are brought ashore in a year for treatment.

The second type of *Coral* is known as " Kadayal " (medium sized). The third kind is called " Nuraikal " (large sized) meaning thereby " stones with bubbles of air ". The second and third varieties are not simply picked out but have to be hammered and broken loose from large *Coral* colonies at a maximum depth of 6 feet and have to be hauled up to the canoe. This is hard labour. Here the fishermen have to know diving as well, as heavy blocks of *Coral* are hammered and broken loose all the time holding their breath and remaining at the bottom without being themselves lifted up to the surface on account of natural buoyance. This busy fishing goes on all the year around. Seventy canoes are engaged with 7 crew and fishermen-divers in each. The *Coral* fishing canoes measure 36 feet in length 9 feet in breadth and carry a full load of 2 to 3 tons *Corals* at a time. The crew and divers belong to the famous Baratha Christian Community to whom we owe much for the advancement of fishing Industry and Navigation in the South. The sail used in *Coral* canoe is lug type. In the afternoon the canoes set their sail and return to the shore opposite Tuticorin Pearl and Chank Fisheries Office in Theresapuram area. On the shore numerous coolies quicly unload the " Catches " for the day. The " Challi " and " Nuraikal " are sorted out and separately heaped. The latter is dexterously stacked in the form of huge cubes and rectangles as the unit in purchase and sale of *Coral* is a cubic yard. The selling price is noted below:—

Challi	.. .. ..	Rs. 2-8-0 per cubic yard.
Kadayal	.. ..	Rs. 4-8-0 per cubic yard.
Nuraikal	.. ..	Rs. 6-0-0 per cubic yard.

Coral Lime Manufacture.

As the " Challi " is dead and deteriorated limbs of *Coral* colonies, is easy to calcine. Hence it is wholly consumed for manufacture of lime. About 15 cubic feet of " Challi " is put into a lime kiln at a time and the top layer of " Challi " completely covered with mud in the form of an apex of a cone and fire kindled from the bottom of the kiln. It takes three days to get completely calcined and requires Rs. 40 worth of coal cinders. Three to four days time is allowed after complete burning for the lime to cool down.

The kiln is 9 feet high and measures 12 feet across the mouth. There are 40 kilns of this type at Tuticorin. All kilns work all round the year except for a short break in rainy weather.

The " Chunamb " so manufactured is not pure white. Hence good results cannot be expected in white-washing. Mostly *Coral* " Chunamb " is used in making mortar. Tuticorin is rapidly expanding in population, industry and area. To meet the increased demand for constructing dwelling houses, factories and Mills mortar is greatly needed for which *Coral* " Chunamb " alone is available. The chunamb is sold at Rs. 3 per " Lasthri " (each lasthri is about 192 measures).

Coral in place of brick.

The " Nuraikal " because of its hardness cannot be quickly burnt for lime. Hence it is used in place of granite and brick for big constructions. The *Coral* chunks can be had in all sizes and shapes. And so house constructions, erection of compound walls, metalling of roads and building of culverts are carried out conveniently with *Corals.* In Tuticorin it is a peculiar sight to see the compound walls of offices and factories, the sides of dwelling houses, the revetment of roads and tops of culverts, exhibiting the shape and size of *Corals* and sometimes even the " polyps ". By looking at the huge compound wall running around Fisheries Office one can form a correct opinion of the different types of *Corals* obtainable in the depth of Tuticorin sea. The cheap way of raising a compound wall is simply to stack large *Corals* at the bottom and smaller and lighter ones at the top without mortar or cement in between stones. In Rameshwaram and Kilakarai also some constructions are out of *Corals.*

The *Corals* meant for construction purposes are usually stacked in the open air and allowed to remain exposed to sun and rain for about a year. This is obviously to wash the salt from the *Corals. Corals* used straight away from the sea make the plaster and white-washings to fall off rapidly. It is an impressive sight to see the north beach of Tuticorin to be full with *Corals* of various types neatly arranged in huge blocks in several rows—some to be bleached by sun and washed by rain and others ready for sale. It is estimated that the annual output of " Nuraikal " is 3,000 tons or 800 cubic yards of Rs. 50,000 worth.

Future for Coral Fishery.

The demand for *Coral* for lime and house construction is ever increasing at Tuticorin. To cope up with the large market the *Coral* fishing industry has to grow. There is scope for more canoes joining this fishing and more divers finding well paid employment in this line. There being no middlemen to exploit, the *Coral* fishermen stand to great profit. Nearly 500 coolies are employed in transporting *Corals* from the canoes to shore, in stacking them in rows, in filling up the kilns feeding the fire, carrying " chunamb " to carts and so on. About 490 crew and fishermen go to sea for *Coral* fishing. Nearly 20 carts and cartmen wait at the shore to transport the lime and *Corals* to town. The *Coral* fishing industry at Tuticorin has a bright future.

Tuticorin occupies an enviable position in the matter of marine products of commerce. There is the progressive fishing industry with Pablo boats and Nylon nets, there are again Pearl and Sangu fisheries with modern *aqu lung* under trial besides there is the most rich salt production alround Tuticorin. Turtles are caught. Thus *Coral,* fish, pearls, sangu, salt, turtle, etc., are exploited from Tuticorin sea.

Thus more things are got from our sea than you could dream of !

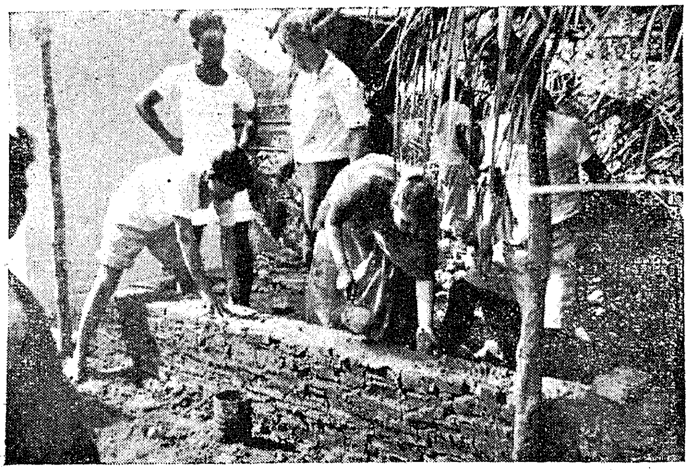
Service Civil International

R. PALANIAPPAN.

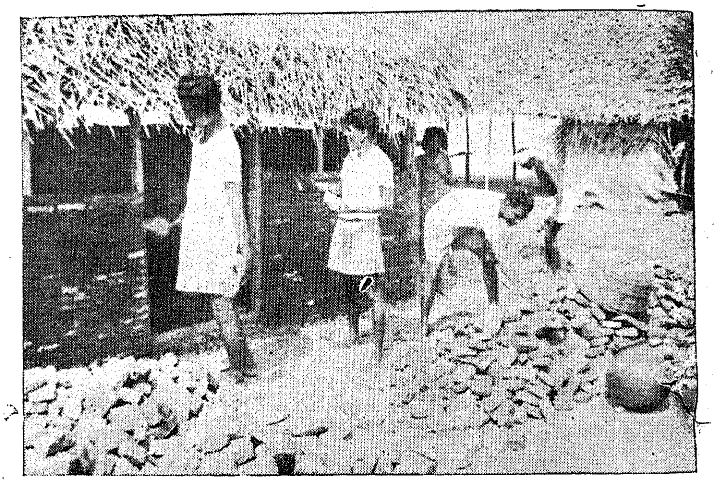
In undertaking the Pilot Welfare Extension Project (Urban) at Cherian Nagar, Tondiarpet, under the auspices of the Central Social Welfare Board, Service Civil International, Madras Groups, have embarked on a slum rehabilitation experiment of considerable significance. Like many of the modern cities, Madras has its own problems with slums. Typical among these is 'Karimeducheri', the slum near Madras Harbour where 320 families comprising of 395 adult males, 403 adult females, 304 boys and 239 girls (of whom 103 and 36 are school going) live under sub-standard conditions without any semblance of even the most elementary hygiene and sanitation. Most of the people are sweepers, cartmen, rickshaw pullers and harbour labourers. Three hundred and thirty-four of the men are employed regularly and the rest earn their livelihood as daily labourers. Average income per family works out to be Rs. 60 per month.

These families are being shifted to the Cherian Nagar where the Corporation of Madras have provided the site extending to 110 grounds together with such amenities like road, light, water-supply, sewers and individual flush-out latrines. Model huts each on plots of 20 feet by 40 feet are at present being constructed for 200 families who are being shifted from Karimeducheri to Cherian Nagar where already 200 families from other slums have been rehabilitated. These huts are being put up by the people themselves with the assistance of Service Civil International volunteers, the Corporation providing three-fourth of the materials required for the construction, the balance being met by the people out of their own resources.

A playground has been built for the children of the settlement and has been equipped with swings, see-saw,



A hut under construction.



Building huts.

chutes, etc. Amenities for playing football, volley ball and basket ball have been provided and games are being regularly conducted under the expert supervision of trained volunteers.

Besides this constructional work, Service Civil International, holds weekly film shows, pre-primary class every Wednesday at 7 p.m. with 30 children to start with and adult education class every Thursday at 7 p.m. with 20 people. Sewing classes for tailoring and embroidery are being held every Friday and Saturday with 15 women in each batch. This has been made possible through the kind gift of four sewing machines by the 'CARE' organization of America. Two lady teachers with adequate technical training and experience have volunteered their services for this purpose. These classes have proved to be very popular and there is a long list of waiting candidates desiring admission. With the recent donation of two more machines by the 'CARE' the frequency of the classes has been doubled.

Moreover, Service Civil International have been able to obtain free gifts of a large quantity of powder milk and wheat from Catholic Relief Service of United States of America through All-India Catholic University Federation. Out of these a cup of hot milk is being provided every day to the children, old people and expectant mothers numbering about 250. Wheat is being distributed to the most needy, every Sunday.

First Aid is being rendered by the Service Civil International Group through the kind co-operation of the local doctor and serious cases are referred to the nearby hospital with which the group has a working arrangement. The whole project is based on the

(*Continued on the next page.*)

Key Village Supplementary Extension Centre

Dr. D. PATTABIRAMAN, Director of Animal Husbandry, Madras.

The All-India Key Village Scheme for cattle development aims at the improvement of cattle wealth by the adoption of scientific methods of breeding, feeding, management and disease control in compact areas. A key village block is a group of contiguous villages with a population of about 5,000 cows and she buffaloes of breedable age. All the entire males in contact with this group are castrated by the enforcement of Livestock Improvement Act. An efficient, natural or artificial breeding service is provided for these female stock from approved and pedigreed breeding bulls of descript type. All the animals in the area and in the surrounding areas are vaccinated during appropriate periods for protection against endemic contagious diseases. Provision has also been made for treatment of day-to-day ailments of cattle. Attention is paid to improve the managemental practices and also to provide adequate and balanced feeding. Schemes for improvement of feeds and fodder resources are undertaken to make the areas self-sufficient. Marketing of Livestock and livestock products through co-operatives is also included in the programme of work.

As per the above programme, fifteen key village blocks were established under the scheme in the First Plan Period for this State. It has been proposed to have eighteen more blocks during the Second Plan Period, of which twelve blocks have so far been established in this State.

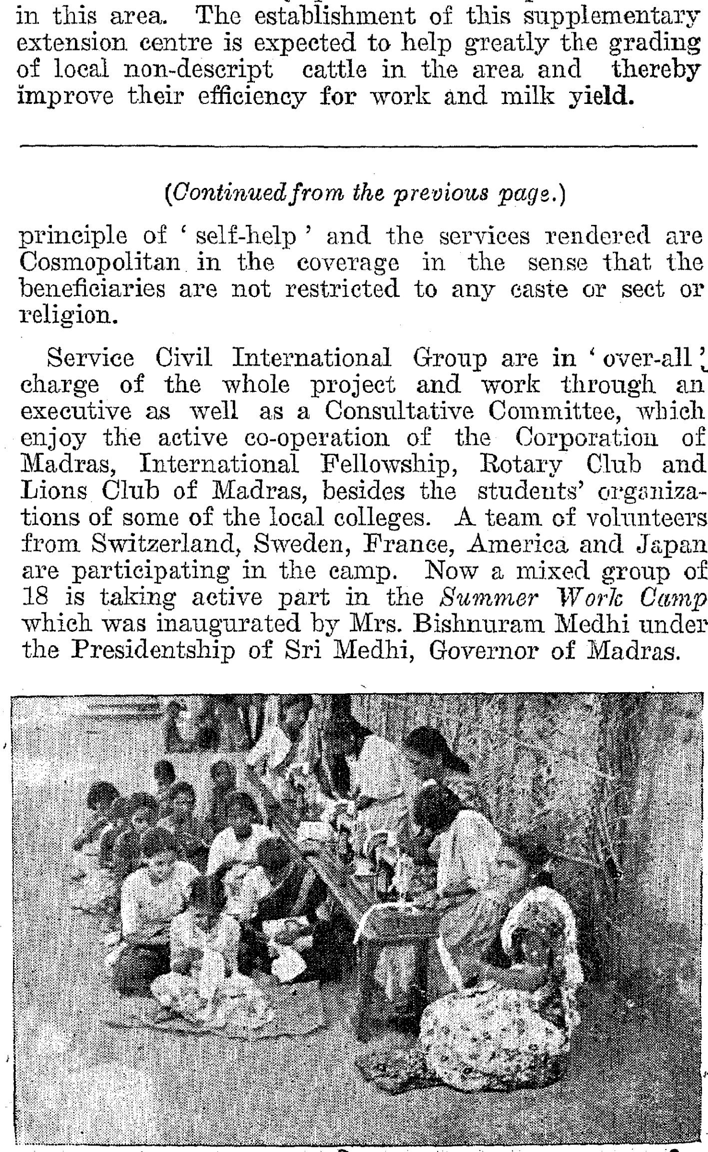
Since the key village blocks have been established from 1952–53, a considerable number of pedigree breeding bulls required for grading up of non-descript cattle are made available in these compact areas, and in order to utilize all such bulls produced in the key village areas, the Second Five-Year Plan provides for the establishment of 41 supplementary extension centres in this State. The programme of cattle development in these supplementary Extension Centres will be the same as that of the Key Village Scheme, except that there will be no artificial insemination and instead more number of bulls of approved type will be stationed in these areas for natural services. Fifty breeding bulls are located in each supplementary Extension Centre area which consists of about 5,000 cows and she-bulls of breeding age. As per the phased programme under the Second Five-Year Plan so far 17 supplementary Extension Centres have been established in this State.

During the year 1958–59, four supplementary Extension Centres have been sanctioned, one each at Vasudevanallur in Tirunelveli district, Vallianai in Tiruchirappalli district, Tiruchengode in Salem district and Valparai in Coimbatore district. The centre at Vasudevanallur in Tirunelveli district was formally inaugurated on 4th August 1958 by the Hon. Minister for Home. Out of the 50 bulls, 25 Kangayam and 25 Murrah buffaloes to be located in the area, 25 Kangayan bulls and 3 Murrah buffaloe bulls have so far been supplied and arrangements are being made for supply of the remaining bulls. These bulls are entrusted to the custody of selected custodians and a subsidy of Rs. 30 per mensem is paid towards its maintenance. The Madras Livestock Improvement Act will be enforced in this area and the breeding will be completely controlled through natural service by bulls in the area. The follow-up of services, verification of calves born, treatment of cases, castration of scrub bulls, prevention of contagious diseases, etc., are being attended to. Necessary qualified staff are posted to work in this area. The establishment of this supplementary extension centre is expected to help greatly the grading of local non-descript cattle in the area and thereby improve their efficiency for work and milk yield.

(Continued from the previous page.)

principle of 'self-help' and the services rendered are Cosmopolitan in the coverage in the sense that the beneficiaries are not restricted to any caste or sect or religion.

Service Civil International Group are in 'over-all' charge of the whole project and work through an executive as well as a Consultative Committee, which enjoy the active co-operation of the Corporation of Madras, International Fellowship, Rotary Club and Lions Club of Madras, besides the students' organizations of some of the local colleges. A team of volunteers from Switzerland, Sweden, France, America and Japan are participating in the camp. Now a mixed group of 18 is taking active part in the *Summer Work Camp* which was inaugurated by Mrs. Bishnuram Medhi under the Presidentship of Sri Medhi, Governor of Madras.



Sewing class.

Employment Service

SRI V. BALASUNDARAN, I.A.S.

The National Employment Service originally established by the Government of India and brought under the administrative control of the Government of Madras since the 1st of November 1956 has steered through another year of progress in all aspects of its work. The Service which began its placement activities with twelve District Employment Offices located at the headquarters of each district extended to the newly-formed Kanyakumari district for which a District Employment Office was opened at Nagercoil on the 1st of March 1958. The Employment Offices were actively engaged in registering applicants of all categories. Special attention has been given to highly qualified, supervisory and technical personnel and also women. New techniques of Industrial and Occupational Classifications, which the Service has made a special study of, have been adopted in the process of registering applicants. During the year, the Employment Offices registered in all 173,517 applicants, recording a conspicuous increase over the figures of last year. Apparent as it is, there is a growing awareness among the employment seekers to resort to the Employment Offices for finding jobs. During the year, 24,278 persons were placed in employment. Predominant factors of the placement were that nearly 200 applicants of highly qualified supervisory personnel and 3,404 applicants belonging to Scheduled Caste and Scheduled Tribes have been placed in suitable employment. The placement figures relating to women are no less encouraging, as 3,432 have been placed in suitable employment. The Employment Offices have shown a steady progress in that they have been able to place a considerably large number of applicants this year as against 22,073 during 1957.

Vacancies notified to the Employment Officers have also shown a steep rise confirming the fact that employers are becoming more and more exchange-minded. During the year, 29,556 vacancies have been notified to the Employment Offices, of which 24,319 have been filled up leaving only 5,237 vacancies, against a majority of which, applicants have been recommended and the result awaited, leaving a narrow margin of vavancies cancelled by the employers due to various reasons.

The patronage of the employers is also significant in that 9,214 employers used the Employment Offices in the State during the year as against 8,193 in 1957. The demand from the private sector has all along been very small. However, the Employment Officers have been carrying out a systematic programme of contact with the employers in the private sector in order to explore more avenues of employment. Vacancies notified from the private sector indicate that the demands for technical personnel are on the increase. Effective steps have been taken to clear the vacancies on a State and country-wide basis, so that suitable applicants might be drawn from any part of India to meet the requirements of the employers. In spite of resorting to Vacancy and Labour Clearing all over the State, it has not been possible sometimes to supply the required number of technical personnel in shortage categories. However, it is hoped that with the increase of facilities for training and apprenticeship in the State, more technical personnel will be available to the employers.

The problem of placing applicants does not resolve itself only into a paucity of employment opportunities. Quite apart from this limitation, the Employment Officers are baffled by many other difficulties which in the main arise from certain patent and latent drawbacks on the part of the applicants. When opportunities are a few, the applicants hold reservations of their own which stand in the way of their being placed suitably. These reservations are pronounced in the matter of choosing jobs which call for greater stress and strain. Immobility is another factor that stands in the way of the applicants securing jobs at the earliest. Besides failure on the part of applicants to observe formalities and fulfil procedural conditions renders their placement all the more difficult and complex.

Since the advent of the Service, the Employment Offices have been primarily functioning as a placement machinery. Until recently, their work in the main has been one of finding employment for those registered. But with the growing needs of the State and the changes in its manning patterns, it has become necessary for the Employment Offices to specialize in the modern techniques of placement. In order to make the Service more scientific and systematic, three schemes have been introduced under the Second Five-Year Plan. These schemes relate to Occupational Research and Analysis, Collection of Employment Market Information and Youth Employment Service and Adult Counselling. Commenced in August 1956, the Occupational Research and Analysis carried out by a Unit set-up at the State Directorate at Madras with an officer specially trained for the work has made steady progress. During the year this Unit has conducted original work in regard to five groups and 35 families of occupations allotted to the Unit. As a result of field study and discussion with the employers, draft definitions in respect of 374 occupations covering the above groups and families of occupations have been prepared.

The collection of Employment Market Information is carried out by a State Employment Market Unit attached to the State Directorate of the Service and Field Units attached to the Employment Offices in the districts. During the year, the public sector has been surveyed in all districts except the Coimbatore district where the public and private sectors have been covered. The quarterly rounds of enquiry conducted have been completed for three quarters up to the end of September 1958. The quarterly report of the Coimbatore Employment Market for the period ending March 1958 has been released in November 1958. The other quarterly reports are under preparation and will be released shortly for the information of the employers, employment seekers and institutions. The programme of surveying the private sector in all the districts will be taken up in course of time.

The Scheme on Youth Employment Service and Adult Counselling orientates the placement work in the State, in that the youths of the State are being guided vocationally to choose occupations and careers to suit their ability and aptitude. Adults have also been counselled in the choice of careers. Though there may not be adequate opportunities for every one that seeks counsel to choose the occupation for which he is most fitted, the programme of vocational guidance and adult counselling opens a vista of deploying applicants in surplus categories into various avenues of employment, so that the congestion in common place occupations may be relieved to a great extent. The Youth Employment Service started at the District Employment Office, Madras, has been effectively functioning since March 1958. The Unit, in charge of an officer specially trained for the work, has so far given group guidance to 8,350 youths and individual guidance to about 122. It is expected that this programme will in course of time be extended to other areas also, so that the youth of the State may be benefited by the service in the choice of careers.

The National Employment Service can be effective not merely by its own resources and techniques but by the advice and co-operation of the employers and others interested in the problem of unemployment. In order, therefore, to enlist the assistance of the representatives of employers and employees, District Employment Advisory Committees had been constituted in each district except in the districts of Tanjore and Kanyakumari, where the Advisory Committees will be constituted shortly. It is also proposed to constitute a State Employment Advisory Committee at the Headquarters at ~~Madras.~~

The Employment Service is an employment finding agency. It has no scope to create employment. However, with the implementation of the Second Five-Year Plan, the consequent increase of the employment opportunities in the State and the application of the techniques which have stood the tests of the International Labour Organization, it may be possible for the Employment Service to play a more vital role in the manpower planning and the economy of the State.

Superannuated Teachers

The Government have passed orders that school teachers who reach the age of superannuation during the middle of the school-year may be allowed to continue till the date of closure of the school for the summer vacation in order to ensure continuity of staff. Accordingly teachers employed in all schools under the control of the Education Department and under public managements who reach the age of superannuation during the middle of the school-year will be continued in service on re-employment terms till the date of closure of the school for the summer vacation, provided their work and conduct are satisfactory and they are physically fit to continue in service.

In so far as the schools under private managements are concerned, the Director of Public Instruction has been requested to commend the above to all the managements of aided institutions in the State, for suitable action.

Use of Improved Implements by potters. Training Centre for K.Puram

The Government have approved a scheme for the development of Pottery Industry in K.V. Kuppam Block, North Arcot district. The object of the scheme is to bring fifteen potters families in K. Puram village, K.V. Kuppam Block, North Arcot district, into the co-operative fold and to give training to each family for a period of one month in the use of improved implements and in the manufacture of useful household articles suitable for local needs. The training will be imparted by a Master Potter. The scheme involves an expenditure of Rs. 1,000 recurring and Rs. 3,070 non-recurring.

Formation of Youth Clubs

The Government have sanctioned an expenditure of Rs. 15,500 for starting 30 Youth Clubs in areas around the Rural Extension Training Centres where Gramasevaks undergoing practical training. According to the scheme the Rural Extension Training Centre should organize Youth Clubs in surrounding villages with a membership of 15 to 20 per club to serve as Models for the Gramasevak trainees and thus enable them to organize such clubs in villages where they are posted. The Ford Foundation will meet the entire recurring expenditure during the first year, half during the second year and one-third during the third year. Half the recurring expenditure during the second year and two-thirds during the third year will be met by the State Government. At present there are seven Rural Extension Training Centres in this State and two of them at Bhavanisagar and S.V. Nagaram are expected to form five Youth Clubs each, while the rest will organize four each.

Science ON THE MARCH

No bad Eggs in Summer.

One of the perils of the long and oppressive summer season in India is the damage it does to perishable foodstuff like fruit, vegetables and eggs, resulting in a loss amounting to crores of rupees to the country.

A great deal of thought, therefore, has been given by scientists to devising suitable techniques for the preservation of foodstuff. Quite a few of these devices, employing cold-storage and other techniques, are today widely in use both in industry and homes. In fact, during the last few years, India has built up a considerably large cold-storage and food preservation industry.

News of further advance in this field comes from the Indian Veterinary Institute at Izatnagar, where the Institute's Poultry Research Division has developed a cheap and effective method of preventing eggs from turning bad in summer.

The method bears the difficult-sounding name of 'thermo-stabilisation' but, in actual practice, is quite simple. All that it involves is a 30-minute immersion of eggs in water, the temperature of which is maintained at 54.5 degrees centigrade.

Eggs intended for thermo-stabilization should not be very stale nor too fresh ; only those of good quality should be used. These are first placed in a wire-basket which can hold about 200 to 250 eggs of the standard size. The basket is then lowered into a bucket containing water at a temperature of 54.5 degrees centigrade. The eggs are kept for 30 minutes in water, which is maintained at the required temperature by continuous flow of hot water from a tank placed at a raised level. Then, they are taken out and cooled immediately by placing the basket in running water or in a bucket, with water changed three to four times, till they reach the room temperature.

Eggs treated in this way have been found to remain edible for 10 days even in the hot summer months of Northern India. The principle behind this treatment is very simple. Eggs get bad in summer because of embryo development. Immersion in hot water destroys the embryo, thus rendering the eggs imperishable and 'vegetarian' destroying at the same time the stigma that attaches to eggs as non-vegetarian food.

The obvious advantage of this method is its utter simplicity and inexpensiveness, when compared with costlier methods like cold-storage. This makes it easily applicable in Indian villages, where individual owners of small poultry farms generally supply the bulk of India's egg production.

* * * * *

India now produces Vitamin 'A'.

With the establishment of plants for the production of synthetic crystalline vitamin 'A' by two well-known firms of pharmaceuticalists at Bombay recently, India becomes the sixth country in the world to undertake commercial synthesis of this vitamin. Together, these plants will be producing 15 million mega units. This quantity, it is expected, should be sufficient to meet the present demand for cheap and good quality vitamin in the country.

Production of vitamin 'A' is a matter of great significance to India's public health programmes. Vitamin 'A' deficiency is widespread in the country and is next only in importance to protein deficiency. The availability of vitamin 'A' in adequate quantities should help in raising the nutritional standard of the people.

The impact of this development on pharmaceutical and food industries is also bound to be considerable. The availability of vitamin 'A' in a wide range of forms and types will certainly facilitate the work of food technologists, pharmaceutical chemists and workers in the veterinary field. It will also help the pharmaceutical industry to put in the market a variety of vitamin preparations in which vitamin 'A' is an important constituent.

Vitamin 'A' is widely used in the preparation of food for infants and invalids, and in the enrichment of such popular foodstuffs as vanaspati, butter, ghee and bread. Besides, it may also find other uses, of which increasing the productivity of livestock is one.

* * * * *

Tapioca Macaroni is a good substitute for Rice

A pilot plant set up at the Central Food Technological Research Institute, Mysore, for the production of tapioca macaroni from a mixture of tapioca flour, groundnut flour and wheat semolina marks a significant advance in food technology.

It was some years ago that a systematic study was initiated at the Mysore Institute to develop nutritious non-cereal foods which could replace rice and wheat. It was a necessary move in the gradual change to be brought about in the eating habits of the people.

Among the principal raw materials selected for processing were tapioca flour and groundnut flour. A unit was set up at Trivandrum, where they succeeded in developing a process for the production of round 'synthetic' grains from a mixture of 85 parts of tapioca flour and 15 parts of groundnut flour.

Further studies were undertaken to explore the possibility of modifying the nature of tapioca dough so that the final product could look like rice. This was meant to be a concession to popular psychology, which wanted a rice-substitute to look like rice. The pilot plant now set up at the Mysore Institute marks the successful completion of these studies and the beginning of actual utilisation of the new process on a commercial scale.

* * * * *

Paper can be made from Chirwood.

Pilot plant investigations conducted at the Forest Research Institute, Dehra Dun, have shown that easy-bleaching pulps with satisfactory strength properties can be obtained in good yields from *chir*, a tree which grows abundantly on the outer Himalaya and Siwalik ranges and also in the valleys of principal Himalayan rivers.

Being a long fibred wood, *chir* is particularly suitable for admixture with short-fibred pulps. It is at present used for the manufacture of sleepers.

Logs, ten to twelve feet long, cut from trees of about 25 years of age, were selected for investigations. *Chir* waste, left after making sleepers, being more economic than log wood, was also used.

The *chir* wood so collected was made to undergo a series of operations, including chipping, digesting the chips at high temperature, treatment of the pulp so produced with bleaching powder and other chemicals and, finally, colouring, pressing and drying the pulp. A series of tests were carried out on the paper made from this product; and the paper was found to have good formation, strength, brightness and other properties.

* * * * *

Easier method for making Idli.

From Mysore comes a piece of good news for the lovers of South Indian food, particularly of inimitable *Idli.*

In the laboratories of Central Food Technological Research Institute, where research has been going on for some time on ways and means of raising the nutritional value of Indian food, they have been able to develop a simplified method of making *Idli,* without having recourse to wet grinding, which most *Idli* makers at present practise.

In the new method, finely ground blackgram flour is mixed with water and made into a paste. The paste, after being allowed to ferment for six to eight hours, is mixed with par-boiled rice semolina. This mixture is further allowed to ferment for another 12 hours after addition of more water. The dough so produced is ready for giving soft and spongy *Idli,* with just the right amount of acidity.

Moreover, at Mysore they have been able to produce a composite *Idli* flour, containing all the fermenting materials. Efforts are now being made to make this flour easily available for kitchen purposes to consumers in those parts of the country where *Idli* constitutes a major item on the menu.

Brassware Industry in Nattarasankottai

The Government have sanctioned a scheme for the establishment of a Brassware Training-*cum*-Production Centre at Nattarasankottai in Kaliarkoil Block, Ramanathapuram district. The scheme has been so designed as to not only give a fillip to the development of brassware industry in the area but also in the process, to benefit the artisans engaged in the industry. It is proposed to give training to ten persons in this trade for a period of one year. During the period of training, the trainees will be paid a stipend of Rs. 30 per mensem each. The Government have sanctioned an expenditure of Rs. 11,000 non-recurring and Rs. 20,400 recurring. The Block Development Officer, Kaliarkoil, will be in administration charge of the Scheme.

State Transport

Sri T. Srinivasan, I.A.S., took charge as Director of State Transport in April 1959.

Madras City.

The fleet strength in the month of March was 470. Special buses were operated to Covelong, Tirupporur and Guindy in connection with Festivals and Races. An average number of 340 buses were operated per day. Total collections for the month amounted to Rs. 15,36,315 and 11,952,984 passengers were carried and 1,175,019 miles were covered. Between 13th January 1959 and 24th March 1959 twenty-two new Leyland Comet type buses were pressed into service replacing old buses.

Kanyakumari Branch.

The fleet strength was 93 and an average number of 64 buses was operated per day and the monthly collection amounted to Rs. 3,05,053.03. A total of 325,310.2 miles were covered and 1,078,484 passengers were carried.

Specials brought in Rs. 18,732.34 after covering 16,847 miles with 44,129 passengers.

Nylon In Fishing

SRI V. D. SPURGEON, Deputy Director of Fisheries, Madras.

From time immemorial, man has been trying hard to invent things with a view to make his life on this planet worthwhile. This inventive human spirit, while it had been responsible for many useful discoveries, has of late also unleashed terrific possibilities for destruction of mankind in the form of nuclear and thermonuclear bombs. With reference to this stage in negative advancement of science politicians call our present time as " Atomic Age ! ". But speaking only about the creative side of modern science, it can be equally claimed that ours is an age of *nylon*.

The discovery of *nylon* has revolutionized the textile industry. Till now the textile industry all over the world was practically dependent on *natural* fibres. *Natural* fibres can be of two kinds, viz., *animal* and *vegetable origin*.

Animal fibres are those such as *wool* and *silk* and *vegetable* fibres are those like *cotton, coir* and *hemp*. Barring five types of fibres there was nothing else in the world till recently for textile industry. With the world population increasing by leaps and bounds, the demand for textile fibres is very acute and with world population ever spreading out on the surface of the globe, the area brought under plough for cultivation of food is increasing. These two adversely affect the world output of *natural* fibres such as *cotton, silk, wool, coir* and *hemp*. Therefore, scientists and industrialists strove hard and accomplished what is regarded as almost a miracle in the discovery of *synthetic* fibre by widely known name of *nylon*.

Composition of nylon.

Nylon is a superior textile fibre produced by chemical synthesis from coal-tar and limestone. While it is difficult for us to believe that such strong, beautiful and silky fibre as *nylon* comes out of coal-tar and limestone, the fact remains that the fibre is out of these two " impossible combinations ". While there is an old proverb in Tamil to say that it is impossible to make fibre out of stone, the time has now come to prove its fallacy and that really *nylon* is out of limestone !

Nylon under different brands.

The chemical process for manufacture of *nylon* is difficult for the man in the street to understand. But he is ready to appreciate the fine texture of the finished product when it emerges out of the rayon or nylon factory. After the last war each leading nation in the world took to *nylon* manufacture seriously and to-day they have put their commodities in the market under different trade marks. U.K. has put it under the names of *Nylon, Terylene* and *Kenlon*; U.S.S.R., *Kupron*; Japan, *Kuralon*; Germany, *Perlon*; and U.S.A. *Nylon*. Soon other nations too might follow with their own *synthetic* fibres.

Nylon in textiles.

Nylon textiles are popular in the market. *Nylon* slack shirts are in great evidence in Madras and *nylon* saries are adorning women. The secret for this sudden popularity of *synthetic* textile clothes is because the public have realized their manifold advantages. They are light, attractive, comfortable to wear, longstanding and available in scores of shades and designs to suit the pocket of rich and middle class alike.

Nylon in fishing.

Rot-proof fishing nets and ropes have long been a dream of the fishermen, but, to-day they are within the reach of Madras fisherman. The application of *nylon* to fishing nets and ropes has brought a revolution in the fishing industry. It is now rapidly replacing other conventional types of fibre like *cotton, coir* and *hemp* and has become the ideal material for net making throughout the world. Why should *nylon* come to be used rapidly in the field of fishing nets and ropes? In what respects are *nylon* nets superior to conventional nets ?

Frequent enquiries are received by the Fisheries Department from the public to let them know all about *nylon* fishing nets. In the following paragraphs the various important aspects of *nylon* fishing nets are briefly explained :—

Rot proof.—Fishing nets made from *natural* fibres like *cotton* and *hemp* are subject to rapid deterioration under water. Outside water also living organisms like bacteria, fungi, white-ants, dermestid beetles, silver fish, moth feed on *natural* fibres. These organisms are present to a smaller or larger extent in fresh water, sea water or storage rooms. Sea salt also destroys nets made of *natural* fibres. But *nylon* nets are completely rot proof. There is no deterioration even after repeated immersion for long periods in fresh water or sea water. They may be stored away whilst wet without the slightest damage from mildew or fungus.

Exposure to sunlight and weathering.—Nets made of *natural* fibres like cotton require to be dried in the sun after use. Exposure to sunlight weakens them. Still drying is quite necessary to protect them from fungus, white-ants and whose harm is greater than sun light. But *nylon* nets need not be dried after use Sun drying only exposes them to unnecessary risk Deterioration to *nylon* nets from sunlight is much slower than in the case of *natural* fibre nets like cotton nets. *Nylon* therefore relieves fishermen of the troubles of drying nets, anti-decay treatment of nets and above all mending the holes in nets. Time, labour and money

spent on drying and anti-decay treatment can be diverted to actual fishing operations. Thus *nylon* nets make possible the lengthening of fishing hours.

Strength.—*Nylon* nets have tremendous strength. *Nylon* is twice as strong and half as heavy as aluminium. Wire of the same size is equally strong to a type of steel wire of the same size. Even when wet, *nylon* retains about 85 per cent of its original strength. It withstands heavy loads with a very little elasticity.

Resistance to abrasion.—*Nylon*'s abrasion resistance is more than ten times of the abrasion resistance of cotton and silk.

Owing to high resistance to abrasion and enormous strength fishing nets made of *nylon* are less subject to mechanical damage.

Thus a *nylon* net will give a very long life. Practical experience has shown that under normal fishing conditions a *nylon* net will last anything up to eight times the life of a *natural* fibre net.

Light in weight.—*Nylon* nets are extremely light—size for size the lightest in the world. If two nets of the same strength are made, one of *nylon* and the other of cotton, the *nylon* net can be far thinner and lighter than the cotton net. This light weight of *nylon* greatly facilitates the handling of nets. In other words, it helps to lessen in a large measure manpower required for fishing operations.

Resistance to temperature.—*Nylon* nets are unaffected by extremes of temperature. *Nylon* retains full strength even in frost and its melting point is 490 degrees Farenheit. *Nylon* does not easily catch fire. It retracts and melts when flame is applied to it. If the heat of the flame is sufficiently intense and the application prolonged it may support combustion.

Low absorbency.—*Nylon*'s low absorbency results in little change in its weight when wet and also means that the fibre dries extremely quick. *Nylon* hardly absorbs water as shown below:—

Nylon	6.7%
Cotton	43.9%
Silk	18.7%
Manila hemp	34.4%

A *natural* fibre net thoroughly saturated in water is 120 per cent to 150 per cent heavier than when dry, whereas a *nylon* net is only about 60 per cent heavier. The handling of the nets is therefore easier.

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Transparency.—Nylon nets are almost invisible in water. It is certain that the reduced visibility produces much heavier catch often as much as 300 per cent greater than the catch obtained with cotton nets. To explain further, in view of the invisibility of the *nylon* nets fishes easily get caught in nets. But in the case of other conventional nets, owing to their visibility fishes often fight shy of approaching them.

Elasticity.—Nylon nets have just the right elasticity to gill fishes. The basic *nylon* yarn stretches up to 20 per cent without breaking. After normal stretching it recovers completely so that mesh sizes remain the same. Further when trapped, fishes struggle hard in the nets, the elastic *nylon* gives allowance to their movements without getting easily damaged.

Transparency and elasticity of the yarn used for fishing nets, especially gill nets, have significant bearings upon the catch. This is why larger catches are guaranteed by using *nylon* nets.

Knot stability.—When *nylon* nets were first introduced, there used to be complaints that knots in nets easily slip because of the smooth surface of the twine and mesh size gets altered. Putting double knots—one opposite to the others—offsets this trouble. Now special techniques have been devised to prevent slippage. They include inventions like *Thermoset* type twines and *Bonded* type twines. By a special process, the coefficient of friction has been increased in *nylon* fish net twines and this has made possible to make knots of excellent stability.

Resistance to oil fumes.—When cotton nets are used on board oil-burning ships they get degraded rapidly by the acidic diesel fumes. But *nylon* is unaffected by such fumes.

Maintenance.—Maintenance of *nylon* nets is easy. They require no drying and no anti-rot treatment. They may be simply piled up while still wet. Nor is it absolutely necessary to remove sea bottom tit-bits that stick on to the nets, because they are unaffected by fish and bottom debris. *Nylon* nets look after themselves !

In a nut shell.—It won't be an exaggeration if it is said that the best fishing nets and ropes are those made from *nylon* or other *synthetic* fibres that are in the market under different trade marks. To sum up their merits, they are strong, rot-proof, durable and easy to handle. They do not stretch out of shape and they dry quickly. In addition, they are not easily visible beneath the water and as a result, when they have been used larger catches have often been reported. *Nylon* net means that time previously spent unprofitably on mending conventional gears, preserving them or drying them can now be spent much more profitably on actual fishing itself.

Because of these merits, *nylon* nets are now rapidly displacing those made of *cotton, hemp* and *coir* and revolutionizing the fishing industry.

At first, it may be thought that the *nylon* net is rather costly in comparison with that of the cotton net. If the above merits are taken into account, it will be readily realized that great benefits will accrue from the use of *nylon* nets in the long run.

Nylon means longer life to nets and larger catches to fishermen.

In our country.—Use of *nylon* has extended to fishing industry comparatively only very recently in India and still majority of the fishing population have not come to see *nylon* and reap its manifold benefits in actual fishing operations in the high seas or placid waters in inland areas.

Government of Madras, through Fisheries Department, has started introducing *nylon* nets among fishermen and the nets are fast gaining popularity. Groups of fishermen and Fishermen Co-operative Societies are given these nets on subsidy and credit basis. One-third value is free and the balance of two-thirds value repayable in easy monthly instalments out of the profits realized in sale of daily fish landed. With the introduction of *nylon* fishing nets a new and brighter chapter is opened in the Madras Fishing Industry.

Waste Turned Into Wealth

The ten million tons of paddy husk available in our country every year, need not remain a waste, agricultural experts point out.

A good, yellowish, powdery manure, rich in plant foods, can be prepared from this waste product.

The manure contains, the experts point out, one per cent nitrogen, 1.6 per cent phosphoric acid, one per cent potash and 2.9 per cent calcium, and will be a welcome addition to our half-starved soils.

The method of converting paddy husk into manure is simple, and can be followed by any farmer.

The husk is spread in the cattle-shed in a ten-inch layer. Over this, about nine inches of paddy straw or any other litter is spread.

The top layer is renewed from time to time. But not so the husk layer. It remains there for about six weeks, after which it is removed and put into a pit and composted.

After about nine months, the paddy husk forms an excellent compost, ready for use.

Assistance for Tirunelveli Fishermen

The Government have sanctioned an expenditure of Rs. 26,800 towards the grant of loans and subsidies to fishermen through their co-operatives at Sippikulam and Tuticorin as fishing along the Tirunelveli district coast has been very poor this season with the result that the fishermen families have been hard hit. Of the sanctioned expenditure Rs. 11,250 is to be utilised for giving short-term loans repayable in one year for the purchase of yarn and nets, while Rs. 6,550 will represent the subsidy to be paid to the fishermen co-operatives for selling the nets at less than their cost price.

Tips to Farmers

Picking and Packing Cotton

Some farmers obtain a good price in the market for their cotton, which most farmers do not.

A good price or a poor one depends very much on how clean you pick and pack your cotton.

Cotton experts stress that all farmers should develop "clean habits" in handling their cotton. Then they will be able to get more profits from their produce.

The "clean habits" are—

When cotton bolls burst, pick your cotton with care so that no dry leaves or other foreign matter gets mixed with it.

Net dry the picked cotton in the open and clean the *kapas* so that all insect-damaged bolls are separated.

Before ginning, ask the gin-owner to clean the gin. Insist on getting back the seed and lint separately. And, important, see to it that your cotton lot is not mixed with others' lots.

Still more important, if you grow both *desi* and American cottons, have them picked, ginned and pressed separately.

Remember, if you mix a good cotton with an inferior one, you will get the price of the inferior one for both.

Don't ever try watering or adding foreign matter for getting more for your cotton. People who do that always lose.

Cotton Diseases can be checked

Many of our farmers are now following some simple precautions for checking the diseases of the cotton crop.

They are now careful not to stock the cotton stalks after harvest if there had been an attack from one or more diseases on the crop. They pull out the stems immediately after harvest and burn them. Along with the stems, they also destroy all shed leaves, flowers and bolls.

Research has found new varieties that resist attack from Wilt, a common disease of cotton in many areas. But for other diseases like Blackarm and Root Rot, no disease-resistant varieties are yet available, and hence the farmers will have to take other measures to check these diseases.

Inter-cultivating a legume like *moth,* which covers the soil and prevents the soil temperature from rising, is one good way of checking the Root Rot disease. Patches in which the disease has appeared should also be isolated, and in these cotton shoud be rotated with some other crop.

For Blackarm and Anthracnose diseases, treating the seed with a chemical before sowing has given good results.

In all cases where a disease has appeared, it pays farmers to show the disease-affected plants to the Agricultural Officer of the area so that he may identify the disease and suggest how it can be controlled.

More Eggs per Year

Watch out for the pullet that starts laying eggs early. Because, the earlier a pullet starts laying, the better will be her total annual egg production.

This is what experts of the Poultry Division at the Indian Veterinary Research Institute at Izatnagar say.

Another finding at the Institute, which will be of interest to all poultry-keepers is this: if you want to have good-sized eggs, select your breeding stock, especially females, with an eye to their body weight.

A 24-week old White Leghorn pullet should weight 3-1|2 pounds, and a Rhode Island Red 4-1|2 pounds. Such birds usually lay standard size eggs, a dozen of them weighing 24 ounces or more.

If you are in the table egg business, here is another useful hint from Izatnagar.

It is economical to keep the birds of Rhode Island Red and White Leghorn for only ten to twelve months from the time they laid their first egg. This is so because in the second year, the number of eggs laid goes down by a fifth.

Improving Your Poultry Flock

May be it's a little slow process, but the crossing of the males of the improved poultry breeds with *desi* females is a good method of improving poultry, especially in our villages.

For this purpose, males of the White Leghorn or the Rhode Island Red breed could very well be used. These breeds are famous for giving more and larger eggs than *desi* birds do.

By using these breeds for crossing with your *desi* hens, you "grade up" your flock.

The cross-bred chickens have better livability; they do not lose the setting and brooding habits of the *desi* mother. So also, they get the instinct of protecting themselves from their natural enemies.

The cross-bred chickens will have a better body-size and egg size and higher egg-production.

All Central and State Governments' poultry farms stock the birds of the improved breeds for supply to poultrymen.

The Rt. Rev. Dr. Thomas, Bishop of Tuticorin, is handing over a gramophone to the Prime Minister.

THE ADAIKALAPURAM CONFERENCE

The Prime Minister, during his tour of Tamilnad in April, participated in the School Improvement Conference at Adaikalapuram in the Tirunelveli District.

This conference is considered to be unique in the sense that it was planned and executed by 777 teachers of the Tiruchendur Range. Sri R. M. Ganapathi, a teacher of Kulasekarapattinam presided over the conference which was inaugurated by Smt. Mabel Frederick Samuel, also a teacher of Christianagaram.

Twenty-seven thousand eight hundred and seventy-six people contributed cash and kind worth Rs. 12,72,002 for the 3,509 sub-projects undertaken by the schools. One hundred and sixty-two elementary, 11 secondary and 4 training schools are benefited by this conference.

Smt. Kanthamma Sundaravadivelu inaugurated the exhibition organised in connection with this conference.

The Prime Minister, the State Minister for Education and the Director of Public Instruction addressed the gathering.

Some of the vessels] and utensils donated by the public.

Free Elementary Education

Maintenance Grant to Schools

The Government have partially modified the previous order regarding fee-levying schools and non-fee-levying schools alone the decisions of the State Education Advisory Committee and pass the following orders:—

The principle laid down in the previous order shall be implemented and there shall be only two categories of elementary schools—(i) aided non-fee levying and (ii) non-aided fee-levying.

The fee-levying schools which decide to change over he non-fee levying basis will be paid grants for 1959–60 on the following basis:—

(*a*) Full teaching grant as usual.

In respect of schools which now pay their teachers at rates higher than the approved scales of pay, the teaching grant will be assessed on the basis of the actual pay of the teachers or pay calculated on the scale of pay admissible in Government service, whichever is less. Any school claiming to pay its teachers now at rates higher than the approved scales of pay will be put to strict proof of the fact before the Director of Public Instruction. The disbursement of salaries of teachers in all fee-levying schools which become non-fee-levying, will be made by Government direct with effect from the academic year 1959–60.

(*b*) Maintenance grant as hitherto, but subject to a maximum of 20 per cent (as against the present 15 per cent) of the teaching grant provided that claims to more than 15 per cent of the teaching grant will be examined and disposed of by the Director of Public Instruction.

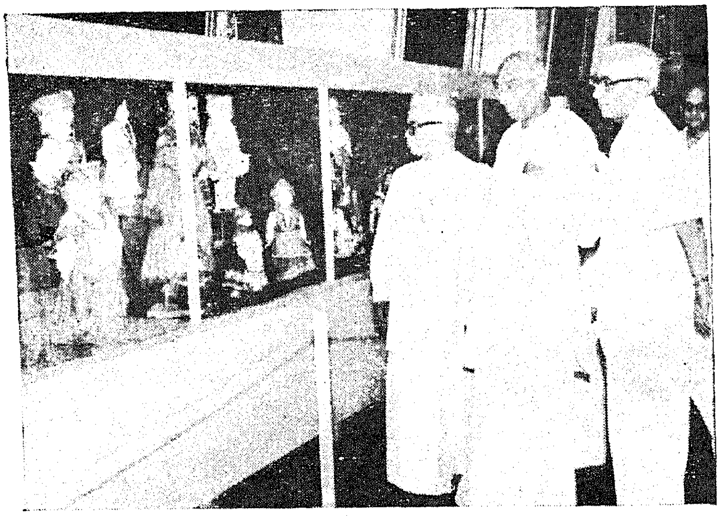
From 1960–61, grants-in-aid to elementary schools will follow the decision taken by Government on the recommendations of the Education Grants Committee in the matter.

Government reiterate their earlier announcement that they will see to it that no teacher goes without employment and no child without facilities for elementary education as a result of the implementation of this policy. Teachers retrenched as a result of this policy, if any, will be absorbed in local body service. If any school is closed down as a result of the inability of the management to continue under the conditions now laid down by Government, the Government will consider the application of any private society or body to be allowed to run the school or, in the alternative, will arrange for the local body concerned to take over and run the school.

Review of Rural Development

A meeting of the Rural Development Board held in the Committee Room in the forenoon of 8th May 1959 with Sri W. R. S. Satthianadhan, I.C.S., Chief Secretary, presiding, reviewed the progress of the Second Five-Year Plan Schemes, the Community Development Programmes and Local Development Works. In view of the fact that quite a few Primary Health Centres opened in the State could not function owing to dearth of qualified doctors, the Rural Development Board was of the view that the Graduates of the College of Integrated Medicine may with advantage be employed to fill these vacancies. The Board was of the view that this recommendation should be pressed for the consideration of Government of India. The Board observed and the execution of the programme through the Block Development Agency in the execution of special Minor Irrigation Programmes within the Block area. This would mean that the Engineering Supervisors who are attached to each Block could be allowed to prepare plans and estimate for small schemes and also supervise the works in the process of execution and record measurements thereof. The Supervisor will however, continue to be under the general control of the Superintending Engineer and will abide by his instructions, while at the same time, the Block Agency will be fully aware of the progress and execution of such Minor Irrigation Works. This would effectively associate the people with this programme.

After discussing in great detail the question of making the Block, as the unit of administration in all aspects, the Board agreed to the idea in principle and suggested that this proposal should be worked out in greater detail ascertaining the views of Heads of Departments as also of Secretaries to Government. The Board also observed that the integration of the departmental budget of the Block level with the Block budget and the eecution of the programme through the Block agency, which will bring about economy in the use of staff, should be borne in mind.



The Chief Minister and the Home Minister with Sri Shanker Pillai at the exhibition.

From France.

SHANKER'S WEEKLY INTERNATIONAL DOLLS EXHIBITION

From Austria.

From Persia.

Plan Schemes in the State

(STATE COMMITTEE'S REVIEW)

The State Development Committee which met on Tuesday afternoon in the Cabinet Room, Secretariat, with Sri K. Kamaraj, Chief Minister, presiding, undertook a general review of the Five-Year Plan Schemes and discussed the progress of expenditure to see how far Madras State will be able to fulfil its target as per Plan outlay.

The Committee took particular interest in assessing he utilization of irrigation facilities under major and nedium irrigation projects. A sum of Rs. 904 lakhs has een spent during the first three years of the Plan on rrigation schemes, out of a total outlay of Rs. 1,233 akhs. The irrigation potential that has been reated has been fully utilized. However, in order to nsure that not a drop of water impounded at such igh cost is allowed to stagnate, the Committee directed hat within three weeks a bill should be ready empowering the Government to dig field channels wherever the onstruction of such channels is the responsibility of ndividual ryots but have not been dug and recover the ost from the ryots. The Committee was informed that he New Kattalai High Level Channel is likely to be ompleted by June this year.

Fifteen schemes of desilting-*cum*-reclamation of tanks ave so far been undertaken in the State during the Plan period. This being a new scheme undertaken on n entirely new idea, the Committee ordered a close examination of the schemes already completed, so that further schemes can be taken up in full confidence. The expenditure under Special Minor Irrigation Programme under which small irrigation schemes costing less than Rs. 10 lakhs each are undertaken by the Agriculture Department was reported to have already reached the full Plan period target. The Committee, therefore, authorized the department to carry out more such works to the full capacity of the department.

While reviewing the Plan schemes for large and medium industries, the Committee recommended the appointment of a Working Group for preparing blueprints of heavy industries which can be included in the public sector schemes of the Third Plan in the State. The Committee was informed that the entire five-year provision of Rs. 333 lakhs under the Small-Scale Industries has been spent and as such the Committee ordered that schemes under this head to the tune of another Rs. 1 crore might be undertaken during the remaining two years of the Plan.

Regarding village housing projects, in National Extension Services and Community Development areas, the Committee felt that, in order to bring about more effective co-ordination of all housing schemes, this scheme might also be brought under the purview of the State Housing Board.

Promotion Scope for Health Inspectors

The Government have created ten temporary non-gazetted posts of Personal Assistants to District Health Officers for all the districts except Madras, The Nilgiris and Kanyakumari. Wherever Personal Assistants to District Health Officers are posted the post of Assistant District Health Officer will be kept in abeyance. These posts have been created in order to afford opportunities of promotion to the cadre of Health Inspectors. At the same time, the Government have also directed that 10 per cent of the sanctioned strength of Health Inspectors in the State be declared Selection Grade which qualifies them for increased initial pay. At present only 7½ per cent of the Health Inspectors are eligible for promotion to the Selection Grade. Suitable candidates from among Selection Grade Health Inspectors will be promoted to act as Personal Assistants to District Health Officers. These orders have been issued on representations made by the Madras State Health Inspectors' Association.

Training of Gramasevikas

In order to meet the demand for trained Gramasevikas, the Government have sanctioned the opening of two more Home Science Wings in the State, and also the expansion of the training capacity at the two existing centres. The two new Home Science Training Centres each capable of training 40 Gramasevikas are to be opened at S.V. Nagaram, North Arcot district and at Pattukkottai, Tanjore district. The S.V. Nagaram Home Science Wing will commence from 10th July 1959, while the Pattukkottai Centre will start from July 1960. At present there are two Home Science Wings at T. Kallupatti and Bhavanisagar, each capable of training 25 Gramasevikas. The Government have directed that the training capacity of these two wings may be expanded from 25 to 40 for the future courses. The next course at these centres, will start from July 10, 1959 when forty candidates will be admitted at each of these centres. During their period of training, the Gramasevika trainees are paid a stipend of Rs. 45 per mensem and after training two Gramasevikas are posted to each Block.

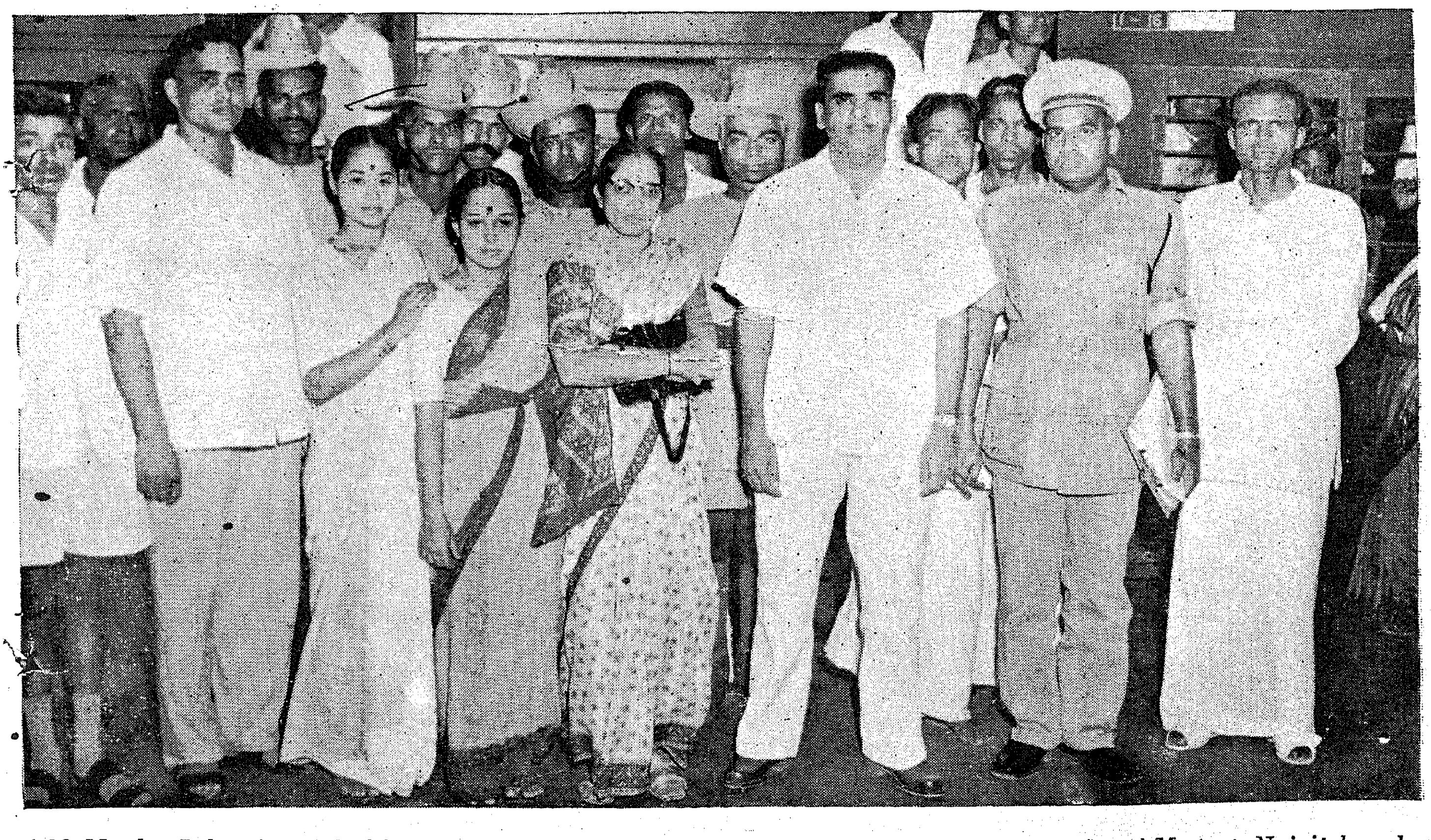
A Table Tennis Tournament was held under the auspices of the Secretariat Association on 8th May. Sri W. R. S. Satthianadhan, Chief Secretary to Government, presided while Smt. Satthianadhan gave away the prizes.

The President is seen congratulating the winners (Right).

Smt. Satthianadhan giving away the prizes.

The Chief Secretary and the President of the Secretariat Association with the winners and runners up.

Under the Scheme for the Welfare of Policemen's Families, a Mautl er Sangam and a Balar Sangam were inaugura'ed at the Police Camp at Avadi on 27th April, by Srimathi Kuppuswami, wife of the Deputy Inspector-General of Police. Photo shows the Chief Guest and others at the Ambar Charka Unit of the Mauther Sangam.



A 32-Member Delegation of the Madras Police Force left Madras to participate in the Police Cultural Meet at Nainital under the leadership of Sri Kuppuswami, Deputy Inspector-General of Police.

Registered No. M.-4767

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and a cheer to the dejected boy-
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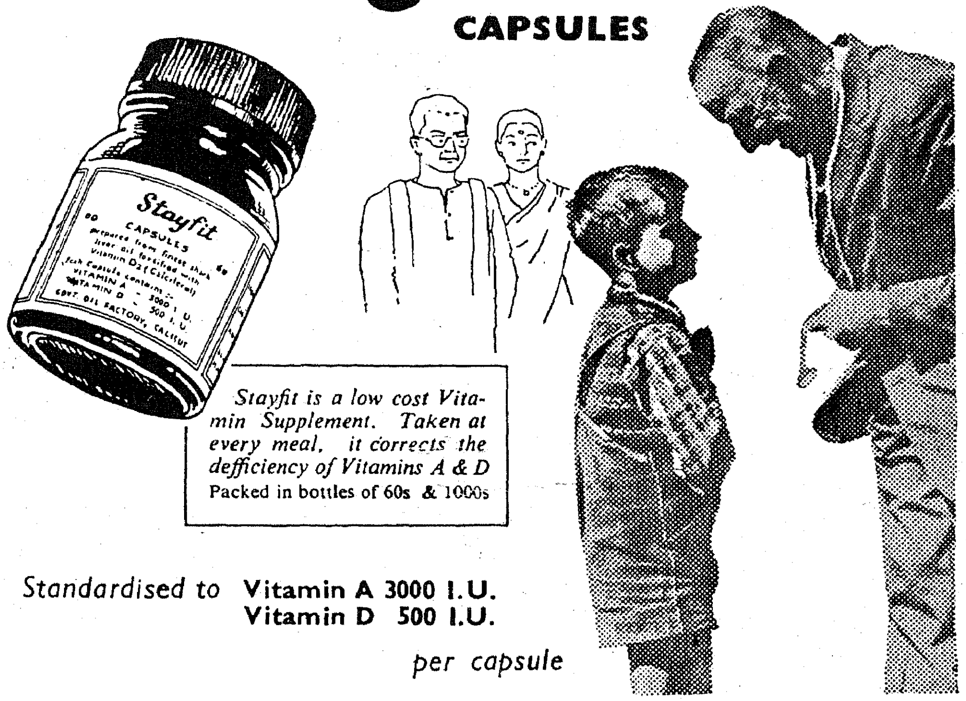

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